Wind Power and Ecotourism:

A Study of Sustainable Development on the Ground in Møre and Romsdal.

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1. INTRODUCTION

This chapter serves as an introduction to this thesis, introducing the research question and the objectives of this study. The motives for delegating an entire thesis to the subject are stated. An introduction to the theoretical framework and important conceptualisations are presented. Further the methods used to gather empiric data are explained. Finally an introduction of the analysis layout and the structure of the thesis are presented.

1.1 Research questions and objectives

Sustainable development has become the dominant discourse in international policy towards the environment (Carter 2007). In 1992, the Rio Earth Summit produced Agenda 21, a blueprint for implementing sustainable development. 170 nations in the world approved the document leading up to a global partnership for sustainable development. Most industrialised countries have published national sustainable development strategies (Carter 2007). A result has been that sustainable development alternatives have become popular. Relevant for this study are wind power and ecotourism. They are being portrayed as sustainable or renewable industries (Buckley 2009, Fennell 2008, National Research Council 2007, Pasqualetti et al. 2002). But they have also been questioned by the impacts they can have on communities and environments and the dilemmas inherent in the concepts (see also Buckley 2004, Bye et al. 2007, National Research Council 2007). Sustainable development alternatives need to be questioned even though there exists a push to develop them in today's society. Turning a blind eye towards their potential impacts on a designated community and environment can be detrimental. The aim is to minimize unwise decisions that will be harmful in the future.

To be able to obtain sustainable development a nation and the global society needs to implement sustainable objectives. If sustainability within these objectives is ignored, it threatens to slow down or reverse development in other

areas or generations (Soubbotina 2004:10). Every activity planned in any nation needs to be developed in order to obtain sustainability, if not a slow or a reversed development would prevail. It necessitates sustainable industries being able to coexist in the same areas. In an area like Sunnmøre, containing one of the highest densities of natural attractions and characterised as a windswept area, wind power and ecotourism seem like good development alternatives for the area to develop sustainably. In 2005, 47% of all wind power energy was produced in Møre and Romsdal (Bøeng 2006) at the same time that the fjords Geirangerfjorden and Nærøyfjorden were placed on the World Heritage list, being considered to have outstanding universal value (UNESCO 2005). In 1998, Norwegians consumed ten times more energy than the world average (SSB 2002). Norway has a duty to exploit less fossil resources and develop technologies for renewable energy resources because of its high share of total global consumption.

Can wind power in conjunction with ecotourism contribute to achieving sustainable development for an area, Møre and Romsdal, given that there exists a high level of conflict within, between and surrounding these two industries?

This research question engages with three important concepts: wind power, ecotourism and sustainable development. With this main research question as a background, four sub-questions emerge which I will address in this thesis:

- Can eco-tourism and wind power be characterized as sustainable?
- What conflicts exist within and between eco-tourism and wind power production?
- How can these developments and conflicts affect the local inhabitants and local environment?
- What main challenges do wind power and ecotourism face? Are they mutually reinforcing or detrimental?

My objective with this thesis is to explore how two different approaches to sustainable development can potentially be in conflict in a way that harms the local inhabitants and local environment. Also, an objective is to show that a development alternative might not be sustainable in practice in a particular place. As a result, the concept of sustainable development, wind power and ecotourism is questioned. Using Sunnmøre as a case, the concept sustainable development will be studied.

1.2 Project background

The global climate crisis and the global responsibility to reduce our emissions and consumption are placed on public agenda (Sørensen 2007:9, Carter 2007:3). At the same time, after the 1950s, more people in the world are in a position where they are able to travel (Holden 2000:18). Consumers and producers are becoming more aware of the consequences of their actions, and as a result the green trend has exploded (Holden 2000). Today, sustainable development is seen as the ideal way to develop, to overcome the climate crisis and to make sure that future generations have resources available for their survival. "Sustainable development is widely accepted as a desirable policy objective among many institutions concerned with the future development of the resources of the globe" (Elliott 2006:6). Sustainable development can be reached with the use of different means and objectives. Wind power can be an example of sustainable energy production, since it is a renewable resource and its energy is produced without any CO2 emissions (National Research Council 2007). Ecotourism can be an example of opening up for sustainable ways of travelling, as its philosophy is not to inflict harm on the natural or cultural environment while at the same time supporting the local community (Fennell 2008).

Møre and Romsdal is a county on the West coast of Norway that has one of the highest densities of natural attractions and the most visited nature attractions in the country (Reiselivsprogrammet 2006). The area is renowned for its unique fjords, coastal culture, islands and mountains. This has not gone unnoticed. The

Guardian has announced that Atlanterhavsveien in Møre and Romsdal is the world's most beautiful road trip and National Geographic has proclaimed the Norwegian fjords to be the world's best unspoiled destination (Lange 2006). At the same time, the fjords Geirangerfjorden and Nærøyfjorden have been placed on the World Heritage list considered to have outstanding universal value (UNESCO 2005). Møre and Romsdal is an area of Norway that is well suited for nature-based tourism, ecotourism being an alternative. Tourism is an important part of Møre and Romsdal's local economy. More tourists are visiting the area and it is the nature-based attractions that are responsible for the growth (Møre and Romsdal Fylke 2007). In 2007 the income from tourism was calculated at approximately four billion NOK per year, and growing, which has motivated more municipalities in the county to pursue this form of industry (ibid.). The reason for choosing Møre and Romsdal, more precisely Sunnmøre, as area of study is because it is such an interesting area in a tourism perspective with high potential, especially within nature-based tourism. Also, as later will be shown, it is a county with high potential for wind power.

It is a global responsibility to reduce emissions and to develop in a sustainable fashion, and countries in the Western world are especially responsible since they are the main polluters in the world. All Annex I countries, which includes Norway, have committed themselves to reduce emissions to 1990 levels according to the Kyoto agreement. But Norwegians are continuously consuming more energy and are listed as one of the greatest energy consuming nations in the world. In 1998, Norwegians consumed ten times more energy than the world average (SSB 2002). The total energy production in Norway consists of 93 percent fossil sources, like oil and gas, which is eight times more than the domestic demand (SSB 2008:51). Hydropower has been the main electric energy supply in Norway with 98 percent of the total production (SSB 2008:54). However, its expansion of is limited because most watercourses in Norway are today protected areas. This is why wind power, among other renewable energy sources, has experienced growth in support in Norway. Norway is backing development within wind power and other types of new renewable energy

technologies by for example contributing 70 million NOK in research and technology to reduce greenhouse gases like CO2 (Langørgen 2008). The potential for wind power production in Norway is great, especially in the counties along the West coast (NVE 2009). The Norwegian government has set a goal of producing 3 TWh of wind power within the year 2010 or a total of 30 Twh of renewable energy and energy efficiency within 2016. Today concessions have been given to new wind power parks along the Norwegian coast that will be constructed and put to use within the next couple of years. In 2005, 47% of all wind power energy was produced in Møre and Romsdal (Bøeng 2006). These numbers show that the wind conditions in the area are optimal for wind power production. It is predicted that Møre and Romsdal will experience power shortages in the future which necessitates more energy production (Sletten et al. 2008). The shortages are mainly experienced because of production challenges caused by geographical reasons like islands, fjords, deep valleys and steep mountains and because of energy-demanding industries. Wind power is seen as a renewable solution (Larsen 2006).

The pursuit of both wind power and ecotourism has given rise to many heated discussions at both local and national levels. Wind power has been put on the agenda as a means to reduce CO2 emissions and other greenhouse gasses. It is proposed as a solution in Norwegian climate politics (Riis-Johansen 2008). Some say that the pursuit of wind power will damage Norwegian nature and landscapes and be a threat to the unique cultures along the coasts (Holtsmark et al. 2005). Others say that the world needs more clean and renewable energy since we are polluting more and more everyday. They claim that the solution to the world's climate crisis lies in new technology and there is no time to wait (Brunvold: interview 04.12.09, Dirdal: interview 20.11.2009). Arguments like these are being used by the producers of wind power, focusing on local benefits such as overcoming power shortages, local economy boost and employment. But local residents are sceptical towards wind power because of the many negative consequences that can affect the local community and environment (Brittan 2002, Hammarlund 2002). Other actors that are taking part in the discussion are

environmental NGOs. In 2000, when Smøla, Hitra and Stadlandet received concessions to build wind farms, Naturvernforbundet (Norwegian Society for the Conservation of Nature) were sceptical. They felt that the areas had such a high value that the interference would be too great. Bellona, on the other hand, were positive to the plans and felt that the most important issue was that the construction of renewable energy sources had finally started (Bye et al. 2007:119). The tourism industry in Møre and Romsdal is portrayed in media as being negative towards wind power production. Terje Devold, former tourism manager in Ålesund and Sunnmøre, states that wind power production will be catastrophic for tourism in the county which already is contributing to employment and local economies (NRK 2005). Tourists come to Møre and Romsdal to see unique and unspoiled nature, the environment there and the culture. Wind power production can be a factor that makes tourism difficult.

We live in a consumer society. Reducing consumption to a minimum is a desirable but unrealistic policy. One of the main arguments in this thesis is that sustainable development has to happen everywhere, in every country, industry, society, community and in every household. We will not be developing in a sustainable fashion in the future if there exists free-riders. For example, if the oil industry keeps generating energy with the amount of emissions this entails, it will worsen the negative climate development. More pollution is released into the atmosphere, overshadowing the work of for example alternative energy developers who are making an effort. This is why this thesis looks at both wind power and ecotourism. They influence each other and are both portrayed as sustainable alternatives. An argument is that in the future they have to coexist. Wind power being an answer to the global pursuit of cleaner energy, while eco-tourism satisfies the travellers need to continue exploring in a healthier fashion at the same time obtaining economic growth locally. Will wind power and ecotourism be successful sustainable ventures in Møre and Romsdal when the conflicts surrounding these sustainable efforts are so intense? And are ecotourism and wind power actually sustainable when they both can inflict harm on the natural and social environment? This thesis is critical to the use of sustainable

development as characteristics for all types of new developments before impacts can be predicted with certainty, and with certainty be kept within a tolerable level. Almost all sustainable policies will have uneven effects, but when does the degree of impacts cross the line to un-sustainability? Discussions about local sacrifices and impacts are therefore important. I find it important to shed light on these questions since sustainable development has been put on the agenda by almost the entire world as a saviour for intergenerational equity and balance in the world (Elliott 2006, Soubbotina 2004). As Carter states: "Almost every country is now committed, at least on paper, to the principles of sustainable development" (Carter 2007:208). I plan to enlighten this problematic situation in this thesis, by looking at wind power and ecotourism in Møre and Romsdal. The strong focus on sustainable development and global responsibility can have grave consequences for the local communities that cannot be overlooked.

1.3 The concept of sustainable development

"Sustainable development has rapidly become the dominant idea, or discourse, shaping international policy towards the environment" (Carter 2007:208). In 1987, the World Conference on Environment and Development published their report, Our Common Future, where sustainable development was firmly placed in international development thinking (Elliott 2006). Sustainable development was defined as: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Elliott 2006:7). The concept is still being developed and the definitions of the term are constantly being revised, extended and refined (Soubbotina 2004). It is understood that: "intergenerational equity would be impossible to achieve in the absence of present-day social equity, if the economic activities of some groups of people continue to jeopardise the well-being of people belonging to other groups or belonging to other parts of the world" (Soubbotina 2004:9). The objectives in sustainable development are threefold: Economic, social and environmental. If sustainability within these objectives is ignored, it threatens to slow down or

reverse development in other areas or generations (Soubbotina 2004). It is understood that if not every institution, authority, nation or community works towards these objectives, sustainability will be hard to obtain. And as long as imbalance prevails between groups of people within a nation or between nations, sustainability for future generations will not become a reality.

A widely used concept is often subject to misinterpretation and misuse. "Different disciplines have influenced and contributed to the sustainability debate, each making different assumptions about the relation between environment and the human subject" (Elliott 2006:9). When a development alternative is proposed, some disciplines might find it sustainable, while others not. Challenges surface when describing a development alternative as sustainable: Which rationale is used? Who is portraying it as sustainable? And is it sustainable in reality? The focus on sustainability and sustainable alternatives as a dominant idea in international policy has given development alternatives like wind power and ecotourism popularity. Even if a discipline characterizes wind power or ecotourism as sustainable it does not mean that this is the reality in every case. All development has impacts and effects, the objective is to find out whether wind power and ecotourism in Møre and Romsdal crosses the line into un-sustainability.

1.4 The value of nature

How nature is valued and how nature is put on the agenda are factors to consider when discussing wind power and ecotourism. This can be an indicator on what changes to nature are acceptable, and what will cause opposition and frustration. Environmentalism has been on the political and public agenda since the 1960s. The global ecological footprint first exceeded Earth's biological capacity in the late 1970s. Since then it has risen, in 2005 overshooting by almost 40 percent (Carter 2007). The global ecological footprint and the awareness of its impacts and consequences has been a driving force to put nature and ecology on the political and public agenda. "Environmentalists believe that environmental

degradation occurs when humans (ab)use nature in ways that both threaten the sustainability of the natural resource base and create unwanted problems such as pollution for human societies" (O'Brien et al. 2007:333). But "environmental politics is suffused with ethical dilemmas" (Carter 2007:13). For example, should wind power and ecotourism be developed in order to rely on renewable development even if it harms the natural world? Or should wind power and ecotourism not be developed in order to protect the natural world, but then sacrifice clean air, clean energy and a healthy way of travel?

Placing nature on the political agenda is one aspect of environmentalism, but the relationship between humans and the natural world is another. For this thesis it is relevant to consider ways of valuing nature, in order to be able to analyze whether views on natures value impacts the acceptance of wind power and ecotourism. In environmental philosophy there is a distinction between *instrumental value*, *inherent value* and *intrinsic value*. *Instrumental value* is the value which something has for someone as a means to an end which they desire (Carter 2007:15). *Inherent value* is the value something has for someone, but not as a means to a further end (ibid.). While *intrinsic value* is simply the value which something has. It simply is valuable and is so independently of anyone finding it valuable (ibid.). An important question asked when analyzing the interviewed subjects' views, especially environmental organizations, on wind power and ecotourism is "Does nature have value separate from its role as meeting human needs?" (Carter 2007:14). If nature has value in itself can that produce a negative view on wind power and ecotourism? Or if humans decide what has value in nature, can society live with the impacts wind power and ecotourism cause nature?

1.5 Wind power

The 1992 Earth Summit in Brazil and the 1997 Kyoto meeting on climate change was a sign of rising concern for the planet's future. At both these meetings one of the most important questions was how to reduce the

environmental price of energy demand (Pasqualetti 2002). The worlds growing population and energy demand in the years to come has urged a need for changes in attitudes, technologies and consumption. The need for energy that produces no waste, pollutes no skies, dams no rivers, floods no canyons, poses no lingering threats to future generations, all the while remaining unending and affordable is on the agenda. Wind power is seen to meet these requirements (Pasqualetti 2002:154). But wind power has been met by opponents in the public. Adverse effects of wind power have been documented such as impacts on geological and water resources, noise, degradation of wildlife habitat, land-use changes, alteration of visual resources and increases in human health hazards (National Research Council 2007). This thesis considers wind power critically with an aim of clarifying its sustainability. Both the positive and negative aspects of wind power are considered along with local inhabitants' acceptance of a wind power projects. Local inhabitants' acceptance plays a central role in this study as: "public acceptance is the best guarantee for a successful wind power development" (Hammarlund 2002:107). "Public opinion shapes policy, while aesthetics shape opinion" (Gipe 2002:179).

Enabling public acceptance for wind power and its success it seems vital to consider the visual aspect. "In Europe the visual impact of turbines is the prime agent of negative public reaction" (Hammarlund 2002:107). The NIMBY (Not In My Back Yard) syndrome is seen as a factor influencing a turbine's visual impact on acceptance. A definition of the NIMBY syndrome can be "finding a technology acceptable in one's county or region, but unacceptable within 5 miles of one's home" (Gipe 2002:177). The NIMBY syndrome will be used to show a main difficulty when developing a successful and sustainable wind farm. An interesting pattern identified by Wolsink, based on opinion surveys of public attitudes towards wind power, was that with time acceptance would grow (Pasqualetti 2002:163). What is interesting to see is whether this can be expected in Møre and Romsdal.

1.6 Ecotourism

This thesis considers ecotourism critically with an aim of clarifying its definition as sustainable. Within tourism research, ecotourism has emerged as one of the least clearly defined areas of study, with a lack of any common agreement on what it is, how it is defined and how it interacts with human and natural environment (Buckley 2009, Fennell 2008, Holden 2000, Page et al. 2002). This contested, debated and controversial concept has received much attention through literature, case studies and research which has created a rich descriptive platform (Ibid). It has created a wide array of definitions and explanations. Ecotourism is characterized as an ecologically sustainable form of tourism (Page et al. 2002). It has become one of the most used terms in modern tourism literature, which critics say has resulted in the concept becoming meaningless (Page et al. 2002). It is argued that if sustainable development is to occur, trade-offs are inevitable and often nature will be the loser, since ecotourism cannot solve all the problems of mass tourism and may in fact, generate problems of its own (Page et al. 2002:57). The ecotourism concept is faced with contradictions, controversies and paradoxes, questioning its very existence. For example, the accusation that it is a stepping stone to large-scale tourism (Page et al. 2002), that it is just a marketing stunt that in reality promotes unsustainable forms of tourism (Holden 2000), or that the definitions are so shallow that criteria are very selective and represent no minimum thresholds that have to be passed (Björk 2007). Even if it is a contested and debated concept it is still a highly popular development form. “Ecotourism is one of the fastest growing segments of the tourism industry globally (...)” (Page et al. 2002:69). Its popularity, even with its paradoxes and meaningless definitions, makes it important to consider the development of such sustainable development alternatives for Møre and Romsdal critically before it is developed. Its popularity could be advantageous if it is a type of development that supports sustainable development. But its popularity is also a danger if the development of ecotourism

does not support sustainable development. This thesis bases its understanding of ecotourism on the basis of Fennell's (2008) definition:

> "Ecotourism is a sustainable, non-invasive form of nature-based tourism that focuses primarily on learning about nature first-hand, and which is ethically managed to be low-impact, non-consumptive, and locally oriented (control, benefits and scale). It typically occurs in natural areas, and should contribute to the conservation of such areas" (Fennell 2008:24).

In conjunction with this definition *total trip focus* versus *destination focus* has a central position in the understanding of ecotourism. Either the definition includes a total trip consideration which includes the visited site and the travelled route or the definition considers a single site or a destination (Flogenfeldt 2006). This study considers a total trip focus when analysing the sustainability of ecotourism in Møre and Romsdal.

1.7 Methodology: Qualitative Research

This thesis explores a study of a community, where wind power and ecotourism are seen as development alternatives in the same area of Norway, and how potentially the outcome of their development will impact local communities and environment. Literature review and field study form the basis for this study, based on in-depth interviews. Wind power and ecotourism are development alternatives that have received much attention separately (Bye et al. 2007, Fennell 2008, Gössling et al. 2006, Johansen 2006, Page et al. 2002, Pasqualetti et al. 2002). Little attention has been placed on ecotourism in Norway, probably because it has not been a popular venture (Viken 2006:38). This has caused it to become a rarely used concept in Norway. On the other hand, there is plenty of literature on conflict assessments between wind power and tourism, both international and national studies (Hörnsten 2002, Kakissis 2007, NRK 2005, Owen 2005, Stokes 2005). While analysis of both wind power and ecotourism

and their potential outcomes has received little empirical attention from researchers and other interested parties, resulting in a lack of pre-knowledge surrounding wind power and ecotourism in Møre and Romsdal. In order to acquire an understanding of wind power and ecotourism's possibility of success as sustainable alternatives, it was crucial to include interested parties. This calls for a qualitative approach which facilitates deep and thorough data collection, exploring phenomena or situations that are lacking of information and understanding. The following will provide a presentation of how data were collected for this study.

1.7.1 Qualitative method

Social science research involves investigating all aspects of human activity and interactivity, and often qualitative methods are used as a tool to gain the data needed. "Qualitative methods are used to explore the meanings of people's worlds- the myriad personal impacts of impersonal social structures, and the nature and causes of individual behaviour" (Brockington et al. 2003:57). This thesis is aiming at exploring a situation where wind power and ecotourism are developed in a local area. People's views and reactions are the kind of information that is interesting for the analysis. By implementing a qualitative method it will be possible to see how the different views arise and how impacts affect sustainable development. The aim is, for example, to find how people would be affected by the development of wind power and ecotourism, their views on sustainable development or emotional reactions such as frustration and the feeling of being treated unfairly.

"If a concept or a phenomenon needs to be understood because little research has been done on it, then it merits a qualitative approach. Qualitative research is exploratory and is useful when the researcher does not know the important variables to examine" (Creswell 2003:22). "To answer some research questions, we cannot skim across the surface. We must dig deep to get a complete understanding of the phenomenon we are studying. In qualitative

research, we do indeed dig deep" (Leedy et. al 2005:133). Although wind power and ecotourism are concepts surrounded by empiric research and pre-knowledge separately, a study of a combination of the two is lacking in research. Qualitative methods were therefore chosen in this study. These lead to a deeper analysis of a formerly unknown area. The time spent in Ålesund and Oslo gave the opportunity to gather qualitative data through fieldwork based on interviews. With literature review as a basis, combined with field information, I was able to form an understanding of the situation studied. The aim for this study is not to be able to make generalisations about an entire country but to shed light on a situation that needs to be put on the agenda.

The researcher plays an important role in qualitative research. "Qualitative research is fundamentally interpretive. This means that the researcher makes an interpretation of the data" (Creswell 2003:182). The researcher subjectively analyses data and sees them in relation to people and actions. The researcher's values, biases and understanding of a project will contribute in the research. Therefore, the validity of the findings could be discussed, but the information found in such studies is deep and thorough. Before I started to collect data I had personal views on wind power and ecotourism. The aim of this study was not to prove my own suppositions, but rather create a comprehensive understanding of wind power and ecotourism formed by different actors. I intended that the actors should portray their personal views, which are recorded in this thesis. They form the basis for the analysis. To be able to create an extensive understanding of wind power and ecotourism the literature review previous to this study was significant. This previous research became an important part and a basis for the interviews and analysis.

1.7.2 Ethnographic study

Within qualitative method there exist different research designs. These designs have their strengths and weaknesses. They represent different techniques of collecting and analysing data. The aim of this study is to analyse a complex

situation, where different parties have vested interests. Using elements from an ethnographic study is therefore relevant.

In an ethnography: “the researcher looks at an entire group- more specifically, a group that shares a common culture- in depth” (Leedy et al. 2005:137). “An ethnography is especially useful for gaining an understanding of the complexities of a particular, intact culture” (ibid.). This study is a limited ethnography with a limited fieldwork, both in terms of the number of participants and the time span. Approximately one month was used for fieldwork, one week of which was in Møre and Romsdal. This is not a classical ethnographic study because I am not concentrating solely on one culture. Represented in this study is a local community, but to be able to gain the type of understanding I was aiming for, other interested groups of actors became vital parts of this study. What made ethnographic study relevant for my study was the notion that: “ethnographic approaches aim to be actor-oriented in their attempts to convey reality from a subject’s point of view’” (Brockington et al. 2003:65).The ethnographic approach gave me the opportunity to study a complex situation, to look at wind power and ecotourism and their effects on local communities and environment. Møre and Romsdal, more precisely Sunnmøre, was the local community studied to show how potentially the development of wind power and ecotourism could affect local communities and environments. I have no other connection to this site than knowledge about its prerequisites to develop wind power and ecotourism. Therefore there exist no vested interests in the outcome of this study other than finding out more about the opportunities for sustainable development. Development of wind power and ecotourism in order to obtain sustainable development in Møre and Romsdal was studied in depth, focusing on individuals from different interested parties. This study looks at a unique situation where wind power and ecotourism are proposed developed in the same area.

Fieldwork

A qualitative approach “(...) seeks to understand the world through interacting with it, empathising with and interpreting the actions and perceptions

of its actors" (Brockington et al. 2003:57). Site-based fieldwork is the essence of any ethnographic study (Leedy 2005). The natural setting for this study was Giske municipality, Ålesund municipality and Oslo. In Giske municipality Vigra, Valderøya and Giske islands were in focus. The fieldwork was conducted in November and December 2008. Ålesund and Giske are situated on the West coast of Norway, in the area called Sunnmøre in Møre and Romsdal county. Sunnmøre possesses unique nature and culture as well having been confronted in the past with wind power projects. I stayed in Ålesund for 5 nights, and had quite a tight interviewing schedule. In Oslo I was able to get in contact with interested parties at a national level, while in Ålesund the representatives were at a local level. The fieldwork consisted of 12 representatives from five different interested parties in the development of wind power and ecotourism. The aim was to gather as many arguments and views surrounding the concepts and their implications as possible in order to obtain a deeper understanding of the concepts and potential conflicts. The interested parties chosen for this thesis were: public authorities, wind power developers, tourism industry, environmental organisations and local inhabitants. They represented both views from national and local levels. Obviously there are other interested parties than the five represented in my study, for example fisheries or component industries. But these five were chosen as the most relevant to the main research question in this thesis. Throughout this thesis both Møre and Romsdal and Sunnmøre will be used as characterizing the area studied.

1.7.3 Data collection: in-depth interviews

Qualitative data collection methods consist of several alternatives. Choosing between them is an essential part to be able to gather the type of information needed. "Although approaches to data collection continually expand in the qualitative area, there are four basic types of information to collect: Observations, interviews, documents and audio-visual materials" (Creswell 1998:120). These four approaches are the basic approaches. In an ethnographic study participant observation and oral testimony are key methods (Brockington et

al. 2003). Participant observation is not a data collection method used in this thesis. I did not need to observe a culture, rather a need to bring the subjects views and arguments into the light. I found the relevant data collection method to be in-depth semi-structured interviews. They were supplemented by media and document analysis.

Sampling strategy

The aim of the sampling methods was to gather key informants within each informant group in order to gather the most prominent views and arguments. It would be difficult to use the same sampling method for local inhabitants and for example public authorities because of their different positions and interests in the development of wind power and ecotourism. Also, not being an insider in the local community created special sampling strategy requirements. The sampling methods used in this study are *snowball strategy* and *criterion strategy.* "The snowball method is a strategy that is used to identify and recruit people from specific or special communities" (Gripsrud et al. 2004:153). "This can be a useful technique for selecting respondents with particular characteristics where information on people with those characteristics is lacking" (Overton et al 2003:43). The purpose is to identify cases of interest from people, who know people, who know what cases are information-rich (Creswell 1998). The criterion method gathers "all cases that meet some criterion" (Creswell 1998:119). The criterion set for this study is: *Groups interested in and affected by the development of wind power and/or ecotourism*. The local inhabitants' representatives were sampled with a mix of *snowball method* and *criterion method*. Not being an insider in the community I wanted to study, I needed help from people I knew, who in their turn knew people in the local community who would be interesting for me to contact. It needed to be a community that had experienced the planning or development of wind power, as well as being suitable for ecotourism, either with existing or planned ecotourism projects. In this way, I was able to contact a relevant community and the right local inhabitants to interview. The other four informant groups were collected by the use of *the criterion method*. The snowball method was not needed here, because

they were easier to contact, easier to recruit and easier to define as relevant for my study. Public authorities, wind power developers, tourism industry and environmental organisations all meet the criterion set for this study.

In-depth interviews

The in-depth interviews were performed with a wide array of representatives enabling a thorough understanding of the topics studied in this thesis. "With an in-depth interview lasting as long as 2 hours, 10 subjects in a study represents a reasonable size" (Creswell 1998:122). This study is based on 12 in-depth interviews, 10 face to face and one on one, while two were performed by telephone. The telephone interviews were performed because of difficulties in geographical placement. The objective to use in-depth interviews was to describe and gather information on the views of a small number of individuals who have experienced or have in-depth knowledge about the situation studied. The interviews took place in Ålesund in November and in Oslo in November and December of 2008. Interviews in a qualitative study are rarely as structured as the interviews conducted in a quantitative study (Leedy et al. 2005). The 12 interviews performed in this study were semi-structured, concentrating on four main subjects: *wind power, ecotourism, wind power and ecotourism in the same area and sustainable development*. Sustainable development was always the last subject discussed. There is a deliberate progression in the order of subjects, encouraging the respondents to take conscious stand points to wind power and ecotourism before considering sustainable development. The motivation for this was for the respondent to consider wind power and ecotourism in connection to sustainability. These interviews were quite open, only using the interview guide as a platform. In this way I was able to collect interesting information. I encouraged interviews based on conversation and discussion rather than strictly following concrete questions that often produce yes and no answers. The questions were used to point out relevant discussion areas. The interview guide was constructed to make sure that all the main areas of study in this thesis were touched upon and although the interview guide did contain many questions, not all respondents were asked all

questions. The challenge with unstructured interviews is the possibility of respondents interviewed answering completely different questions and moving away from the study's main subjects (Leedy et al. 2005). Also there is an uncertainty whether a person will answer truthfully when faced with an interviewer. It is common that the truth is modified to place oneself in a better light (Selnes 1999:115). The experience in this study was that people were not afraid to utter their views on wind power, ecotourism, sustainability and their potential effects. These concepts are probably not seen to be connected to controversial views or ethical questions that would cause people in the community or society to react. Although many different views were uttered, they seemed truthful and portray the representatives' real views and interests. The only group that could be characterized as being careful with their answers were public authorities. They uttered their public view quite clearly, trying to stay away from their personal views. In some cases this made the conversations seem mechanical. The greatest challenge was to keep to relevant information and not to let the respondents move too far away from the main subjects in this thesis.

Document and media analysis

Document and media analysis was used to collect relevant data to supplement the findings during the fieldwork. The media analysis consisted of analysing articles from newspapers and other online sources, for example Dagbladet, Nationen, New York Times and National Geographic News, to create an understanding of potential conflicts and the complex situation surrounding wind power and ecotourism and the build up of frustration through the last couple of years. Especially articles based on wind power and tourism in Sunnmøre were of main interest. The documents analysed were mainly concerned with research done on ecotourism, impacts from wind power and public and tourism opinion surveys.

1.7.4 Processing and analysing data

With the help of a tape recorder the information from the interviews were collected. The 12 interviews had an average length of 1 hour, varying from 45 minutes up to 1 hour and 45 minutes. Considering the length of the interviews information is easily lost if not using some form of recording device. After the fieldwork was over, the interviews were transcribed in Norwegian. They were transcribed in order to be able to analyse the information thoroughly and to ensure that the analysis reflected what had been mentioned during the interviews. I categorised the information from each interviewed group, connecting them to the main subjects in this thesis: *Wind power, ecotourism, wind power and ecotourism in the same area and sustainable development*. This was done in order to be able to identify the material in accordance with the research questions. It systemized the information and made it possible to find interesting, relevant and connecting quotes, also enabling each group's views and arguments to become clear. Especially quotes that gave an impression or agreement and quotes that gave an impression of disagreement were highlighted. From the coded information, representative quotations from each interview formed the basis for the analysis. The quotations are used throughout this thesis to underline the views of the different interested parties. The quotes used are translated into English after my own interpretation.

1.8 Structure

The structure is the backbone of the thesis and gives every part a meaning. For the reader it is important to get an overview of what to expect in the following chapters, and how these chapters study the research questions. First an overview of the layout of the analysis is needed, and then a closer review of each chapter will follow.

The analysis will first be centred on the concepts wind power and ecotourism, separately. Here the emphasis will be on their definitions as

sustainable alternatives at the same time analyzing possible impacts. It can be characterized as an analysis looking at both positive and negative aspects. It is this complex situation that is the main source for analysis in this thesis. Further the analysis will turn towards the findings during my fieldwork. First the development actors' arguments are analyzed to show a situation that has been the source of the conflicts surrounding wind power and ecotourism. Then the local inhabitants' perspectives are analyzed. At the same time impacts wind power and ecotourism would have on the local community and environment in Sunnmøre are discussed from a local level. This part of the analysis ends with a discussion on wind power and ecotourism coexisting in the same area. When the analysis has reached this point, the complexity of the situation has become clear. Therefore an analysis of what challenges are facing wind power and ecotourism will follow, looking at the concepts separately and together. The analysis looks at challenges that complicate the success of each concept. It is questioned whether or not wind power and ecotourism can be characterized as sustainable and whether they can coexist in the same area. I also look towards the future to see whether wind power and ecotourism have a chance of success and whether they are concepts that should be ventures in the years ahead of us if we wish to reach a sustainable society.

In chapter 2, wind power is first considered, looking at *ecological impacts, impacts on human health and well-being, aesthetic impacts and wind and local development*. Then the chapter moves on to look at ecotourism through *transportation issues, access issues, tourists' motivation for travel, marketing issues and ecotourism and local development*. This chapter will show the discrepancy between wind power and ecotourism's characteristics as sustainable alternatives and how the development in reality could impact local environment and community, which will contribute in describing differences in theory and practise. It will therefore help answer whether wind power and ecotourism can be characterized as sustainable in Møre and Romsdal. In chapter 3, the arguments on wind power and ecotourism found during my fieldwork of development actors will be portrayed. Development actors are understood as interested parties in

sustainable development and consist of *public authorities, wind power developers, tourism industry and environmental organizations.* Chapter 4, *View from a local community in Norway*, portrays the local inhabitants and other local representatives' perspectives on wind power and ecotourism in Sunnmøre at the same time as *impacts on local environment, impacts on local community* and seeing *wind power and ecotourism in the same district* are discussed. In this chapter both local arguments and local development actors' arguments are represented. Not only will local inhabitants have opinions about these developments that concern their community but also local politicians, local tourism industry and local environmental organizations. My study showed that arguments from all levels of representatives, both national and local, concerned this chapter. Both chapters 3 and 4 will investigate the conflict between wind power and ecotourism and the effects they can have on local communities and environment. In chapter 5, an *analysis of challenges for a local community in facilitating sustainable development* is considered. This chapter analyses the main findings. At the start of this chapter a summary of the main conflict lines found is stated. Further, the main findings, also seen as challenges, are discussed: *wind power and ecotourism existing together, the use of natural resources, public acceptance of wind power, the split between environmental organizations and wind power and ecotourism as sustainable forms of development.* This chapter will contribute in finding out what main challenges wind power and ecotourism face as sustainable alternatives, and whether they are mutually reinforcing or detrimental. What will be the best solution to achieve sustainable development, both, one or neither? Finally, chapter 6 will conclude the thesis.

2. WIND POWER AND ECOTOURISM IN LIGHT OF SUSTAINABLE DEVELOPMENT

In this chapter I am looking at two different industries, wind power and ecotourism. These two industries are chosen as cases to discuss sustainable development because, firstly they are both portrayed as sustainable or renewable alternatives (Deutch et al. 2004, Fennell 2008, Holden 2000, National Research Council 2007, Page et al. 2002). Secondly, wind energy is being planned on many levels along the Norwegian coast (NVE 2009). Ecotourism, although not a new concept in many parts of the world, has newly been but on the agenda in Norway as a measure to strengthen the tourism industry (Miljøverndepartementet 2007, June). Thirdly, they are concepts that are intriguing because they both have interesting paradoxes surrounding them. Fourthly, the very idea of sustainability needs shedding light on, as it can often be used with little or no substance. The two concepts are introduced in this chapter and then discussed more fully in the following chapters. The following chapters look at wind power and ecotourism in connection with conflicts surrounding them in Sunnmøre, Norway.

Wind energy has through history in some way or another been used. Today modern wind energy production is based on supplying electricity for human consumption (Hills 1994, Righter 2002). It is a technology that has been seen as both positive and negative for the environment, and has endured criticism from local communities, environmental organisations and other industries for being controversial when considering the impacts it might have (Bye et al. 2007, National Research Council 2007). On the other hand it is characterized as a renewable energy source that has zero emissions when it is in operation (National Research Council 2007). In such a light it can be considered as a sustainable way to produce energy.

"Ecotourism is one of the fastest growing segments of the tourism industry globally (...)" (Page et al. 2002:69). The concept ecotourism is seen as a healthy

way to develop a tourism industry as long as it is kept small-scale. As a principle, ecotourism gives back to local communities and empowers them (Fennell 2008, Page et al 2002). It has been marketed aggressively as a win-win solution for the less developed world (Page et al. 2002). Ecotourism has been seen as a niche-product Norway has put on the agenda (Miljøverndepartementet 2007, June). In this context, ecotourism is a way to make the tourism industry more sustainable. "In theory it should be less likely than other forms of tourism to damage its own resource base but this is only true if such tourism is managed with great care" (Page et al. 2002:69). It has been observed that ecotourism is an "activity, a philosophy and a model of development that fits very well in the context of Scandinavia (...)" (Gössling et al. 2006:1). It is a way of using competitive advantages at the same time as considerations for the environment and local communities are taken. However, in Norway ecotourism has been considered as an irrelevant theoretical concept, as most tourism activities are seen to take place in natural settings and are understood as sustainable or eco anyway (Gössling et al. 2006). Sceptics to the concept exist. The feeling is that ecotourism is just used as a marketing stunt to attract more tourists, and not at all sustainable.

2.1 Wind power

Wind is a phenomenon that is connected, historically and present, to different associations and traditions of use. As Righter puts it: "Wind energy is too abundant and thus too valuable to ignore" (Righter 2002:23). History shows that humans have old traditions in the use of wind, for example in sailing, grinding grain, pumping water and in the late 1880`s it was for the first time used to provide electricity. Credit has been given to William Thomson for being the first person to purpose the use of wind to generate electricity (Hills 1994:265). Today, wind turbines are used merely as a source of electric energy. In the 1940`s the first modern wind turbines came to Scandinavia, in Denmark. But it would take over 50 years before Norway got its first wind turbines that produced electricity to an electrical transmission grid, Vikna Husfjellet in Nord-Trøndelag

in 1991. Today Smøla wind farm, in Møre and Romsdal, is the largest in Norway, with 68 wind turbines (NVE 2009). The windmill itself has changed, from aesthetically beautiful wooden windmills often used in literature and paintings to industrial machines, rising 95 meters into the air with a rotor diameter measuring 120 meters. It is no longer called a windmill but a wind turbine.

Generating electricity from wind energy has the potential to reduce environmental impacts, because unlike other sources based on fossil fuel, it does not result in the generation of atmospheric contaminants or thermal pollution. It is called a sustainable way of producing electricity (National Research Council 2007). Wind is seen as a future solution for the climate issue, which gives wind a quite positive association. It is also seen as a technology that can be removed without leaving any trace in the natural environment when the turbines no longer are in operation (SINTEF Info-blad 1999). The sun, characterized as a renewable resource, is the source of unthinkable amounts of energy, wind being one of them. Wind occurs in the imbalance between outgoing and incoming radiation at high and low latitudes. It is called the maintenance of the global temperature, moving heat from the equatorial to the Polar Regions by atmospheric movements (National Research Council 2007). Today, wind technology enables the moving air that passes the rotor of a turbine to result in eight times more wind energy. A modern 1.5 MW wind turbine with a tower height of 90 meters, operating in a near-optimum wind speed of 36 km/h will create more than 1.4 MW of electricity. This means that after eight hours it will produce the amount of electricity used by the average U.S. household in one year(National Research Council 2007:17,18). This example shows the potential wind power can have and the amount of electrical energy that exists in wind. “But its contribution to the world’s supply of electricity is still small (less than 1%), though in some parts of the world it is growing rapidly” (Deutch et al. 2004:24).

Globally the need, not directly for wind power, but for renewable energy sources has been put on the agenda because of the growing evidence of rapid

climate change through greenhouse gas emissions. The objective is to reduce the use of fossil fuels which we rely on today. As a result wind energy has become more popular. “At regional or global scales, the effects of wind energy on the environment often are considered to be positive, through the production of renewable energy and the potential displacement of mining activities, air pollution, and greenhouse gas emissions associated with non-renewable energy sources” (National Research Council 2007:67). The European Wind Energy Association (EWEA) attributes the decision to develop wind energy in Denmark and Germany, among Europe’s leaders in the amount of wind energy capacity, to the nuclear accident at Chernobyl in 1986 and the Brundtland Commission’s report on sustainability in 1987(National Research Council 2007:42). Today Norway has 17 installed wind power projects, 18 projects have been granted a license but not yet installed and 56 have awaiting a decision or are in the process of applying (NVE 2009). Of the 17 installed wind power projects, 9 are small-scale or test projects. They do not contribute largely to the overall energy production. The remaining 8 wind power projects have a production in excess of 1 TWh, Smøla wind farm contributing to nearly half of the total amount produced in Norway, with 0.45 TWh. 0.45 TWh is approximately the amount of energy needed for 22.500 Norwegian households in a year (Kjeldsen 2005). If the 18 granted licenses became operational, Norway would have the potential to reach approximately 4.6 TWh of wind energy, 3.6 TWh generated from on-land wind power. The potential for wind power along the Norwegian coast is enormous. NVE (Norwegian Water Resources and Energy Directorate) and ENOVA (an organisation owned by the Royal Norwegian Ministry of Petroleum and Energy working for environmentally sound energy production and rational use), have estimated the total potential for wind power along the coast, from Lindesnes to Kirkenes, to be 20 TWh within 2025, the equivalent of 10 percent of Norway’s total electricity consumption (Aspheim 2008). In addition to this estimate NVE has surveyed 12.5 percent of Norway’s total territory, and found an approximate potential of 250 TWh of wind power. This is more than double the hydropower potential (Lundberg et al. 2008).

At the other end of the scale we find the environmental impacts and impacts on humans that wind power causes. Rapports express their concern for the environment surrounding wind turbines and wind farms (National Research Council 2007). Even tough they see the potential wind energy has as a renewable energy source, they also make the point that it is not all positive. All energy production has impacts and will leave a mark in the social and natural environment. The effects and impacts wind energy development has and may potentially have will be thoroughly discussed in chapter 4 (View from a local community in Norway). In this chapter I will consider some of the issues that need discussing when labelling wind power as sustainable; ecological impacts; impacts on human health and well-being; aesthetic impacts; cultural impacts; wind and local development.

2.1.1 Ecological impacts

Generally there are two main ways wind turbines can impact the ecosystem surrounding it: through direct impacts on individual organisms and through impacts on habitat structure and functioning (National Research Council 2007:69). Time and size aspects are important aspects when considering impacts. Some are short-term, for example light flashes, while others are long-term, for example influencing habitat structures. The size of the project gives indications to how severe the impacts will be and to what distances from the wind turbine impacts can be found.

Construction and operation of the wind-energy facilities directly influence ecosystem structure in different ways and degrees, depending if the area has previously been disturbed by other industries or whether the site was previously undisturbed (National Research Council 2007:69,103). The amount of existing roads, historical land use, topography and type of vegetation are important factors to consider. “Site preparation activities, large machinery, transportation of turbine elements, and ‘feeder lines’, transmission lines that lead from the wind-energy facility to the electricity grid, all can lead to removal of vegetation,

disturbance, and compaction of soil, soil erosion and changes in hydrologic features" (National Research Council 2007:69). Although some of these impacts are locally oriented and characterised as short-term since they are connected to the construction phase, they can cause irreparable damage to vegetation, organisms and to the habitat. At the same time some of the impacts are long-term, like maintenance roads, wind turbines and transmission lines, which are connected to the operation phase of wind production. What is typical for these kinds of impacts is that they cause further and cumulative effects for the species and organisms relying on these areas. An example can be the clearing of forest for wind turbines: "Such an impact may radiate outside of the area actually disturbed by turbine development for some species to a distance of 100 m in all directions from the forest-edge to the 'footprint'" (National Research Council 2007:104). The noise and vibration may cause avoidance behaviour and changes in the population size. Bird and bat collisions with the turbines have also been documented, causing deaths and put populations under pressure. National Research Council states that: "site characteristics may influence risk of fatality for birds, including location relative to key habitat resources (such as nesting sites, prey, water, and other resources) or concentration areas during migration, vegetative community in which the turbines are constructed, topographic position, and other factors"(National Research Council 2007:86). The above emphasizes the complexity of the impacts. Even if impacts are not obvious to the human eye, it does not mean that they do not exist. Any foreign object will cause alterations and irreparable damage in some form or another. And even if humans do not feel it, the changes will be felt by the organisms dependant on the environment.

Studies on impacts and monitoring are complicated. A number of pre-construction studies exist, looking at conflict scenarios. After-construction studies seem to surround opinion surveys and impact studies, but they are difficult to measure. The impacts are complex, considering season, weather, species, eco-system type and spatial scale. Also influences may cumulate and interact in complex ways, and dependent on the quantity of turbines and their

placement, making especially conflict analysis and cause analysis difficult. Further, studies show varying results causing much debate, about whether or not the impacts are as grave and intrusive as first presumed. Different studies usually come to different conclusions, some portraying negative effects the wind turbines have had, while others show opposite results. An example here is the study on birds and bird collisions in Smøla Vindpark, carried out by NINA (2007), Norwegian Institute for Nature Research, between 2003 and 2006. During the license review of Smøla wind farm, it was presumed that developing this wind farm would have negative impacts on the sea eagle, which at that time was listed as endangered. The area had been registered to have a large and dense population of nesting sea eagles. The study shows that after 2005, ten sea eagles have been found killed, all showing signs of collisions. Overall they found a reduced breeding population, an increase in adult and juvenile mortality and reduced breeding success. These impacts are seen as serious when it comes to the population in Smøla (ibid.). At the same time the Directorate for Nature Administration has registered a total growth in the sea eagle population in Norway and is now characterising the population to be stable and the sea eagle no longer a threatened species. They express the threat wind turbines potentially can have for the sea eagle population (Miljøstatus 2008). Even though the potential threat wind turbines present are mentioned, the total impression is that sea eagles have a growing population in Norway. But not all sea eagles live in wind turbine territory and although a population grows in general, does not describe actual population health in wind turbine territory. The growing numbers of sea eagles are often used as arguments from the pro-wind power development position. All the same, it is documented that wind turbines and eagles do not mix well. Studies from the Altamont Pass, California, show that the wind farm kills an average of 40 to 60 golden eagles every year. And in Spain it has been concluded that 368 turbines at 10 sites have killed nearly 7,000 wild birds in one year (Murray 2003).

2.1.2 Impacts on human health and well-being

In Norway, and in other countries with wind power, there has been little research on the impacts wind power has on local communities, while research on impacts on wildlife and natural environments are extensive (National Research Council 2007). Wind power projects can both have positive and negative impacts on humans, the main positive impact being improvements in air quality. This is little documented and it is difficult to assess because improvements might appear far away from the turbine itself (National Research Council 2007). In contrast, negative aspects are prominent.

Wind turbines generate both mechanical and aerodynamic noise. Construction and maintenance also produce noise (National Research Council 2007:157). The experience of noise is individually different and therefore difficult to assess. Also shadow flicker might have an effect on human health and well-being. In sunny conditions, the turbines will cast moving shadows changing light intensity. Sunny conditions might also result in lights being reflected that can be experienced as disturbing (National Research Council 2007). Often communities of people living near existing and proposed wind farms have sharply voiced their opposition. Despite broad support for renewable energy in general and wind energy in particular, opponents have successfully stopped wind energy developments. The wind turbines simply should always be put somewhere else (Righter 2002). No one wants to sacrifice their own backyard despite the benefits. If there is an assumption that wind power will have a serious impact on the landscape and on humans' well-being, there is little chance for the project to be a success. Reactions have also been intensified by turbines being out of order. When the turbines work people know that they contribute to environmental benefits and that the landscape they sacrificed was not in vain (Righter 2002:35).

2.1.3 Aesthetic impacts

Wind-energy projects are not the only development that impacts humans. Road development, other types of energy production, factories or landfills all have aesthetic impacts. Studies show that humans find wind turbines visually disturbing. "Aesthetics is often the primary reason for expressed concern about wind energy projects" (National Research Council 2007:141). It is difficult to do an assessment of the aesthetic impacts wind power has. This is because aesthetics are difficult to quantify and are subjectively perceived. The felt impacts can vary from person to person. "The essence of aesthetics is that humans experience their surroundings with multiple senses. We often have a strong attachment to place and an inherent tendency to protect our 'nest'" (National Research Council 2007:142). We are concerned by changes in our landscapes. A change is not always negative. Some people find wind turbines to be beautiful, but even if it is a beautiful object it might not be beautiful in its surroundings. Others find them intrusive, and as Toril Molnes, local inhabitant on the island Vigra, states: "People and wind turbines do not combine well" (Molnes: interview 26.11.2008).The turbines are regarded as industrial installations which should not exists in the vicinity of humans. They repel rather than attract. Not only do the local inhabitants express their concern regarding the aesthetics, as Snorre Slettvold, organisational leader in Miljøvernforbundet (Green Warriors of Norway), states: "Environmental protection or concern also includes the aesthetics" (Slettvold interview: 18.11.2008). Aesthetics is a part of the total environment.

Reasons for the strong reactions can be that wind turbines are often planned in areas never before considered for industry, perhaps even in areas used for recreation. They are often highly visible because of the areas where wind conditions are optimal, on mountain ridges, along the coast or in open plains (Nielsen 2002:118). At the same time it is necessary for the turbines to be close to transmission lines and access roads, which are often close to humans. "Wind turbines are unavoidably visible, even intrusive. They interfere, some argue, with

local landscape aesthetics" (Pasqualetti 2002:4). Wind turbines cannot be hidden; they have to be in an open area for the wind to hit the rotors optimally. As mentioned, they are viewed, especially from the local inhabitants as industrial components: "The straight lines of turbines do not enhance the natural landscape, but merely emphasize the heavy hand of utilitarianism" (Righter 2002:32).

"No one who has spent time in the wilderness would condone the violation of that landscape by wind turbines. The most desirable landscapes are those which give little evidence of human management" (Righter 2002:29). This statement underlines the point that it is not only local inhabitants that are affected by the development of wind-energy, although they have to live with them everyday. Others with a relationship to nature will find them aesthetically intrusive.

But other statements show the opposite. "Some say that the visual impact can be diminished by breaking the arrays into clusters, an other solution could be to space the wind turbines across the countryside one at the time to escape the masses of turbines in one area" (Brittan 2002:61). Even if this would reduce the visual impact, other problems surface, like distances for repair and the need for electrical lines. Others say that: "a well-planned location for the wind turbines can enhance landscape contours and contrasts" (Nielsen 2002:118). Positive images people have of wind energy are the linkages to being eco-friendly and as a replacer for CO2-emitting electricity sources (ibid.).

2.1.4 Cultural impacts

People have a sense of attachment to places. This entails a: "certain indefinable sense of well-being which we want to return to, time and again" (Righter 2002:37). People who have memories attached to landscapes do not want change. The possibility that special places may be visually altered by hundreds of wind turbines will trigger determined opposition. "Familiarity with a place generates attachment, and indeed love, of that landscape" (ibid.). A result is a growing conflict between nature and technology. The protection of local landscapes and

local opposition to wind turbines can be considered as the local inhabitants' need to protect the place they feel attached to, were history and memories are kept alive. The landscape and surrounding environment can be characterised as an important part of local culture. A wind farm may potentially alter local culture and the humans' sense of belonging.

Wind turbines and wind farms are usually not locally owned. The owners live far away from the site which can result in a lack of local control and responsibility (Brittan 2002). If a wind farm was locally owned, the possibility of local sense of responsibility and control could make them more accepted and become a part of the local culture, something to be proud of. Today, people living with the turbines are not the same people that make the decisions in Norway. This is quite ironic when considering the locals' knowledge of their local traditions and environment can contribute in land use decisions that minimize conflicts with humans and nature.

Research done by Karin Hammarlund (2002), a Swedish geographer, found that there are different reactions to wind power among rural and urban dwellers. Farmers look upon wind generating equipment as a contributor to their rural subsistence. Temporary summer residents do not agree. They want to escape the intense pace of the city and are looking for recreation and recuperation in the countryside. For these people, new wind turbines might not be a soothing or welcome change in the landscape (Hammarlund 2002). It becomes clear that acceptance for wind farms is culturally dependent. For example, a farmer who is used to industrial equipment and working the land would not see a wind farm as negatively as a tourist from the city who wants to get away from the everyday disturbances. How one views wind farms depends on the relation to the specific landscape. Throughout nature sacred or historical sites are found that are important to the local inhabitants, but also are tourist attractions or recreational space (National Research Council 2007). Wind power development can come to harm the integrity of such places which is controversial.

2.1.5 Wind and local development

The total wind energy resource is very large. "About 1 % of the incoming solar flux goes to drive the winds, or about 1,200 terawatts (1 terawatt=10^{12} watts). This is roughly 100 times the current global rate of energy use. But only a very tiny fraction of this energy could ever be captured economically" (Deutch et al. 2004:24). One reason is the construction of large wind turbines, that are designed to stop when winds exceeds certain levels to protect the turbine. The turbines are fragile and have been known to break down and are in need of constant maintenance. Also the cost of the building materials and materials needed for repairs are high. Variations in wind speed will cause large variations in the amount of produced energy. It is an unstable and uneven energy source which is therefore difficult to make economically reliable. Stig Roar Husby, Leader of the Environmental Impact Assessment section in the Ministry of The Environment, argues that: "Many licenses are given to wind project developers, but so far only a few are developed. The main reason is that the developers do not find it economically interesting to invest in the projects" (Husby: interview 10.12.2008).

Employment is an important part of local economy, also it can prevent centralisation. "A wind-energy project is a source of jobs throughout its life cycle: for parts manufacturers and for researchers seeking to improve wind-turbine performance; for workers who transport and construct wind turbines and related infrastructure; for the workers employed in operation and maintenance of turbines, transmission lines, etc; and for workers involved in project decommissioning" (National Research Council 2007:165). One consideration is that not all of the examples of employment stated above will be locally based. Most jobs, for example parts manufacturers, will be located other places in the country, or even in other countries. In the construction phase of the wind farm there will be need for local employment, but in the operation phase the needed employment levels will drop to only maintenance and repairs. Also jobs in connection with research can be a relevant before or after the lifespan of a wind

farm. Although there are job opportunities connected to wind energy, a critical analysis is needed to see what actually is gained at a local level. Monetary incentives and tax benefits are used to encourage wind energy production, which has a positive impact on local economies. This results in new nursing homes, day-care centres and improved hospital coverage (ibid.). On the other hand, it should be considered whether wind-energy production effects property value (ibid), but it has proven difficult to asses.

To see how wind power can contribute to a local community or what a community might expect of local development from wind power, I will use Smøla as an example. This is a municipality in the north of Møre and Romsdal that has had wind power influencing their community since 2002. In Smøla municipality's plan for wind power, certain economic issues and expectations have been listed in connection with Smøla Vindpark:

- Employment: in the construction phase, contractors, deliveries and other services
- The possibility to start local component production, and a local wind power industry
- Trained staff will be needed, approximately 6-8 operation employees at a power plant producing 150 MW
- The possibility to develop local professional training/education
- Lease income to landowners
- Government revenue through property taxes and other tax revenues
- The possibility to develop a nature centre in connection with experiences from wind power developments and their effects on the environment
- The development of a wind power experience centre
- Green promotion of the municipality as a environmentally concerned area

- Improved infrastructure (roads, harbours)

(Smøla kommune 2001, my own translation)

Statkraft were the wind power developers of this project. It is expected that these possibilities and expectations were created by the wind power developer and the local council in cooperation. The impression is that many of the above mentioned points are used as selling points from the wind power developers to create acceptance in the local communities. Whether or not these points are actually realized in the local communities, is an interesting question. To answer this question it is necessary to look at what is happening in this municipality today. In Smøla they are experiencing a flourishing business sector and unemployment numbers are falling (Nordseth 2009). Officials in Smøla conclude that many of the commitments and ventures they backed have become successful, wind power being mentioned as one of the important contributors. The Mayor of Smøla feels that things are developing in the right direction. For example, a study carried out by Telemarksforskning, shows that Smøla is one of the leading municipalities in Møre and Romsdal when considering reestablishment and population growth (ibid.). The wind farm is given credit for the population growth. It needs educated employment, which has resulted in younger generations wanting to settle down in the area. In addition, a new nursing home has been built, modernization of schools and nursery schools is planned, and at the same time as a new ambulance boat has been put into operation (ibid.). This is just to mention a few of the community development projects that have taken place in Smøla in the last couple of years. Whether or not they all can be linked to wind power is unsure, but it seems wind power has created optimism and development opportunities. What can be directly linked to the wind farm is the growing interest for the area, in an educational sense. Representatives from other municipalities, post graduate students, doctorial students and other groups of people come to Smøla to see and learn about wind power and to visit Smøla Vindpark, northern Europe's biggest on-land wind farm (Gjernes 2006). When

looking at Smøla, it becomes clear that wind power can have a positive effect on local development.

2.1.6 Summary- positive and negative aspects of wind power

In theory, wind power is an immensely potential renewable energy resource. Seen technologically, it is a never ending sustainable way of producing energy that does not generate atmospheric contaminants or thermal pollution. It is seen as a tool to obtain the global need for renewable energy to slow down the rapid climate change. Norway has a great potential for wind power, and it can in time have a larger production than hydropower. 250Twh of wind power is just waiting to be used along the coast of Norway. Local communities are seen to gain from wind power development, as the example from Smøla showed. Although the economic aspects of wind power vary in degrees from project to project, it is expected to have a positive influence on local development. An improvement in air quality is also seen as a positive aspect when energy is produced by wind, or other types of renewable energy sources, rather than fossil energy sources. Although the positive aspects of wind power are quite promising, the negative impacts wind power can cause can not be overlooked. Wind power production necessitates the use of large spaces. Construction and operation of wind power will directly influence the ecosystem in the area, either directly or through impacts on habitat structure and functioning. Aspects like clearing of vegetation, construction of necessary infrastructure, noise and collision threats all influence the environment in some way. The main reason for the lack of local acceptance is the aesthetic impact wind power has. Wind turbines are quite dominant in the landscape and are perceived as visually disturbing. This is not a problem that is easily solved when considering that wind turbines are placed in open and highly situated areas. It is not just the visual aspect that determines the acceptance for wind power. Acceptance is also culturally dependent. Whether or not wind power is seen in a positive light depends on the motivation for being in the area. Noise, shadow flicker and light reflections are aspects that concern local community's health. Concern is also placed on cultural aspects, that wind

turbines might alter the feeling of belonging and attachment to a place. Local inhabitants feel the need to protect the areas they are attached to. Economic aspects are also not as straightforward as many portray. The turbines are fragile and are in need for constant maintenance, also winds are irregular and this influences the amount of energy produced. It is seen as difficult to make wind power project economically reliable. At the same time, it is debatable whether employment possibilities are as important locally as one is lead to believe. Comments are that not all employment in conjunction with wind power are locally based, and that it is only in the construction phase that employment levels will be of significant size. Wind power has to be questioned when considering sustainable development, when the negative impacts outweigh the positive effects.

2.2 Ecotourism

Human beings are naturally inquisitive, and seek out the unknown with a wish to experience things that are not taken out of our everyday life. Tourism has experienced development, today representing travel for pleasure and self-fulfilment (Holden 2000). And, as every other industry, tourism has felt the pressures of today's climate crisis. They have been named as one of the biggest polluting industries. This has marked the starting point for changes within the tourism industry, moving away from traditional mass tourism to concepts like green tourism, responsible tourism, small scale tourism, sustainable tourism, geo tourism and ecotourism. This change is nothing new, as in many parts of the world this kind of tourism development has been going on since the late 1980's (Holden 2000:190). Consumer behaviour started to change to a higher concern over the environmental effects products had and a concern for the developed worlds' consumption patterns. While ecotourism might be an often used concept in other parts of the world, it is a relative new concept in Norway.

Ecotourism is a concept with many definitions and there lacks a common agreement on what it is. There is debate surrounding the origin of the term (Björk

2007; Buckley 2009; Fennell 2008; Holden 2000; Page et. al 2002). It becomes clear in the large amounts of literature on the topic. One can say that in general the term comes from the dissatisfaction with conventional forms of tourism which are concerned with profits. The concern rather lies with ecocentric perspectives were they intrinsically value nature above humans, with a conservationist attitude (Wurzinger 2006:127). There seems to be agreement on the person to first define ecotourism. Ceballos-Lascurain in the early 1980's defined ecotourism to be: "travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas" (Fennell 2008:17). However the term can also be traced back to Hertzer, who in 1965 used the term to explain the intricate relationship between tourist and the environments and cultures in which they interact (Fennell 2008). Studying the history of the concept, it becomes apparent that ecotourism first became an idea in the late 1960's and early 1970's as a result of researchers becoming increasingly concerned with the use of natural resources, however only in practice and not yet a concept named ecotourism.

Misinterpretations have made the concept controversial. It is not difficult to see why misinterpretations still exist. Not only do we have a swarm of different definitions and principles, there also exist very basic definitions which leave much to the interpretation of the reader. For example TIES, The International Ecotourism Society, defined ecotourism in 1990 as: "responsible travel to natural areas which conserves the environment and improves the welfare of local people" (TIES 2009). Although the positive aspects of having a basic definition can be that it is easy to remember, easily articulated and executable, it does not say anything about what can not be characterized as ecotourism or what responsible travel and natural areas are or what is required for conservation of the environment and the improvement of the local peoples' welfare. Nothing in this definition says that driving a rib (a special high powered boat) into Saltstraumen, the world's strongest tidal current, is not ecotourism. As long as the locals get

direct income from the activity and some of the money goes to a local deep sea research centre, it can be called ecotourism according to this definition because it is nature-based and it gives the tourist enjoyment. But can it be characterised as ecotourism when it becomes clear that the rib is diesel driven, or that the activity is so popular that the quantity of tourists increases, tourists that have travelled far for this experience? Who knows what kind of impacts these aspects might have. Even though it has been marketed as environmentally friendly and as an improvement for the local community, it says nothing about the possible long term effects.

David Fennell (2008) has, through a content analysis of 85 separate definitions of the term and from personal experiences, provided us with his own definition. The definition is thought to be comprehensive enough to avoid being misapplied, but not so wide-ranging to be overly restrictive:

> "Ecotourism is a sustainable, non-invasive form of nature-based tourism that focuses primarily on learning about nature first-hand, and which is ethically managed to be low-impact, non-consumptive, and locally oriented (control, benefits and scale). It typically occurs in natural areas, and should contribute to the conservation of such areas" (Fennell 2008:24).

This definition has some important aspects. First, it shows that ecotourism is supposed to be sustainable part of the total sustainable development for an area. Secondly, this definition quite clearly separates it from other types of tourism. This makes it more difficult to misuse and misinterpret. Thirdly, it points out some important principles, nature-based, ethically managed, non-invasive, low-impact, non-consumptive and locally oriented. These principles ensure that ecotourism never becomes mass tourism when it comes to scale, quantity of tourists, the gravity of impacts, empowerment of locals and the businesses being locally owned. At the same time the non- consumptive principal ensures a sustainable future. Fourthly, the educational aspect is portrayed as important in

ecotourism. Instead of consuming goods and resources, education is a major motivator for travel. Last, the principle of conservation means that the whole experience, the environment and the community will not be impacted to a level where it will be harmed for ever, but conserved for future generations. This definition will be the background for further discussions in this thesis.

Although ecotourism seems to be a healthier way of travelling when considering more traditional forms of tourism, there are five important issues to discuss when labelling ecotourism as sustainable; transportation issues; access issues; the tourists' motivation; marketing issues and ecotourism and local development. In chapter 4 I will discuss effects and impacts ecotourism may potentially have on the environment and humans more thoroughly using Sunnmøre as a case.

2.2.1 Transportation issues

Transportation has a central role in any form of travel."Tourism is a typical example of the tendency of modern industrial societies to separate different aspects of human life by space (holiday resorts, wilderness reserves, designated areas for second homes, etc.) and by time (leisure time, holidays, etc.). These designated places and time periods are linked together through huge communication networks (to a large extent driven by fossil fuels) that, together with various social, cultural, economical and on-site ecological problems, make tourism one of the most crucial challenges to sustainable development" (Sandell 2006:98). Subsequently, transportation might be one of the most harmful aspects from a climatic change perspective, especially travel based on air transport. This kind of tourism needs to be regarded as unsustainable (Folke et al. 2006).

The destinations ecotourists wish to visit, are often difficult to access by public transport because of their remoteness or being untouched and unspoilt (Wurzinger 2006:129). A Swedish study carried out by Wurzinger and Johansson in 2003 and 2005, analysing environmental concerns of Swedish ecotourists, showed that a larger number of ecotourists than city and spa tourists used the car

to travel to their destination (Wurzinger 2006). "Using a car to travel, contradicts the idea of ecotourism as a sustainable form of tourism" (Wurzinger 2006:129). Wurzinger (2006) also found that overall, ecotourists did not differ in their general travel patterns from city and spa tourists and that they used aircrafts as often as city and spa tourists. It becomes clear that ecotourism probably is not as sustainable as the definition portrays since transportation is an important part of the total ecotourism product.

Solutions to this paradox have been proposed. For example, a tourist utilizing existing routes with free capacity might be regarded as an ecotourist. "His/her trip does not require any extended use of energy since the train, bus, or airplane would have done the transportation work regardless of his/her presence" (Flogenfeldt 2006:151). But when studying the definition of ecotourism, where low-impact and non-consumptive aspects are important, this solution does not seem adequate. If the aim is to obtain a sustainable future, less consumption should be promoted and not justify consumption with the filling up of empty seats although it is more sensible to have a full plane since emissions of this plane will occur anyway. As Snorre Slettvold, organizational leader in Miljøvernforbundet, argues: "In a climatic perspective we need to reduce the extent of transportation" (Slettvold: interview 18.11.08) Also, a danger lies with the airlines or other transport companies. To be competitive in today's market and to survive economically the main objectives are to be as efficient as possible and to continually adapt products to market demands. When for example a plane is full, environmental or sustainable concern will not stop an airline introducing additional flights and routes.

Ane Brunvold, leader of the Climate and Energy Department in Bellona, argues that: "People will travel despite the emissions. It is not travel we want to stop, but the use of fossil fuels in the transport sector. We need clean technology" (Brunvold: interview 04.12.08). This is characteristic of technology optimism, that we do not need to change our consuming patterns because in the future technology will save the day. There are sceptics to this position. Folke et al.

argues that: “As technological change can contribute only to minor gains in fuel efficiency, while total emissions are increasing with the growing number of people participating in travel, ecotourism operators should seek to attract tourists from geographically adjacent areas” (Folke et al. 2006:162). Although cleaner technology is preferable, it is outbalanced with the growing number of people participating in travel. Even though a cleaner technology in itself will reduce emissions, total emissions will be higher because of the increasing number of people travelling longer distances. Relying on technology is probably not the solution for the transport dilemma in ecotourism. There are many examples in the tourism industry, world wide, that reliance on transportation is apparent while considerations for geographical distances are secondary. A typical example can be the ecological tour operator, Basecamp Explorer, which offers dog sleigh and scooter trips to Svalbard, safari in the Masai Mara, and trips to Rajasthan (Basecamp Explorer 2009). They are a highly awarded ecological tour operator, with a mission to give revenues to the local communities and to conserve the uniqueness of a place. They have an ultimate goal to absorb and store more carbon dioxide than they emit. But the distance inherent in these experiences are not fully considered and cannot theoretically be titled sustainable when the gravity of emissions are considerable. And instead of promoting less or non-consumption, they give the impression that they will be able to be ‘carbon neutral’ even if you have to travel greater distances.

The above discussion shows the split experienced between a *destination focus* and a *total trip focus* (Flogenfeldt 2006). To be focused more or less only on what is happening at one destination or site is to be *destination focused*. In a *total trip focus* the view is more inclusive, this includes the trip to and from the destination. By using the Basecamp example in a destination focus, the trip offered to Masai Mara would be the equivalent to an ecotourism destination when considering their local community empowerment, their conservation efforts, the education and their environmentally friendly constructed camps. But when analyzing the offer in a total trip focus, the transportation issue to the destination becomes an issue. In a sustainable and eco-view, transportation will

participate in questioning the" ecotourismness" of the offer. Jan Sverre Sivertsen, department leader of Innovasjon Norge Tourism in Møre and Romsdal, has problems with being able to call Svalbard an ecotourism destination because of the thousands of kilometres tourists need to fly (Sivertsen: interview 25.11.2008). Also Terje Devold, leader of the tourism company 62 Grader Nord in Ålesund, is concerned about this paradox. He argues that: "The real ecotourist would be the one that travels short distances, for example from Ålesund to Valdal for a 3-week cabin holiday" (Devold: interview 27.11.08).

2.2.2 Access issues

Ecotourists often enter ecologically sensitive areas, the unspoilt and untouched. They also seek out cultures that are different and unique, often in areas that do not have the facilities and infrastructure necessary to make their footprint as lenient as possible. Ecotourists can cause significant impacts on natural resources that are vital to ecotourism (Manning et al. 2004, Higham et al. 2007). "For an access issue to exist, there has to be an interest in utilizing the landscape (firewood, scenic view, game, etc.) and a situation where this utilization is controversial. Both aspects are obviously deeply rooted in a cultural context" (Sandell 2006:100). The dilemma is what ecotourism relies on is in danger of being harmed by its activity. Not only can it be potentially harmful towards the tourism industries' interests, but access issues also concern the local inhabitants and the natural environment. Johnson (2004) states that the environmental impacts access issues cause, can be divided in two main areas: Impacts on infrastructure and impacts on the social, economic and the quality of life for the community. Although ecotourism should be non-invasive, low-impact, non-consuming and locally oriented, the tourist will leave a mark, maybe not a serious mark, but the locals and the environment will have felt their presents in some form. Consequences can be a modification of habitats, disturbance of animals and humans, road kill, contributing to aggressive behaviours in animals, woodlands and mountain ranges being exposed to erosion, abrasion of vegetation and wear on roads and camping sites (Buckley 2004,

Manning et al. 2004). The access issue raises an interesting question: who is responsible to pay for repairs and to repair damage? Most probably not the ecotourist.

Knut Støbakk, mayor of Giske municipality, argues: "One can come to harm the local environment because the same level of control does not exist as with mass tourism. I would call it egotourism since the traveller wishes to experience something unique, something others do not. A consequence can be that they force themselves on the local inhabitants" (Støbakk: interview 28.11.08). This fear is understandable. The interest of the local community is important. They live there, while tourists come and go. Mass-tourism is organized and usually has designated facilities. The local communities can then choose to be a part of this form of tourism or not, by not seeking out these areas. With ecotourism, however, the situation is different. The tourists want to travel avoid the main stream and get close up, real experiences. Some of the coastal communities in Norway are very unique and can seem exotic for people travelling from other parts of the world. This can result in the local inhabitant feeling forced into being a part of the travellers' experience. If ecotourism is not controlled and kept small-scale, the impacts of tourism access will be too extensive and the value of this form of tourism will disappear or cause the local area irreparable damages and expenses.

Jan Sverre Sivertsen states that: "The consequences can be grave when an area is used incorrectly, an area that does not have the necessary facilities and infrastructure" (Sivertsen: interview 25.11.2008). This can be the case with ecotourism in developing countries, but in a developed country like Norway facilities often exist. These facilities however might not be what the ecotourist is looking for, and they might not even be looking for any facilities. As a result, ecotourists might find their own ways and places to stay, and this can impact the areas travelled to, also in Norway. Access issues, as mentioned above, are often dependent on the cultural context, and on how the locals and those who travel experience situations. Geography is an issue here. Norway, for instance, is

characterized by long distances, valleys and fjords, mountains and coasts. These characteristics can be a part of access conflicts. For example, difficulties in navigating can cause a higher level of abrasion of vegetation when people lose their way. This also happens when venturing off trail systems. Travelling long distances can cause more people to camp in areas where it is forbidden or in areas that have not been camped in earlier. The impacts will then be more visible than using existing campsites.

2.2.3 The tourists' motivation for travel

Previous research consists of different typologies to describe the ecotourist, often seen as a scale of how little or strong the principles of ecotourism apply. Examples can be *big E* and *little E, light green* or *totally green*, and *Loungers* and *Special ecotourists* (Holden 2000). This thesis will not consider typologies of ecotourist because it is an extensive subject that would need a separate thesis. As with much of the other writing about ecotourism there is no consensus about the meaning or what it includes. Instead focus will be on their motivation for travel, which is more relevant when considering sustainability.

Even though environmental concern and protection has been pointed out as one of the main motivators for eco-travel, this has been questioned (Wurzinger 2006:127). Studies show that generally ecotourists seem to be an environmentally concerned group of tourists and adhere more to an ecocentric perspective than to an anthropocentric perspective (Wurzinger 2006). But do they travel for these reasons? Or is it still the activity and the experience that is the main motivator? As Jan Sverre Sivertsen argues: "I believe, unfortunately, that few tourists are motivated by the environmental aspect. But it can be a decisive factor that determines whether to travel here or there. It will in any case be a contradiction to travel somewhere to protect the environment. I believe the main reason for travel is the experience and activities" (Sivertsen: interview 25.11.2008). And as Wurzinger (2006) found in her study of ecotourists in Sweden, a positive environmental attitude does not necessarily lead to ecological

behaviour. This is proven by the choice of transportation methods mentioned above. Since ecotourism destinations are often off the beaten track. The study has shown that ecotourists often use a car more frequently during travel than other categories of tourists (Wurzinger 2006). It can often be difficult to distinguish between the ecotourists' and the mass-tourists' motivation for travel. Even though the ecotourist, through theories and definitions, are portrayed to have environmental concern as their main motivator for travel, the reality often is that it is the experience or the activities that are decisive. One of the reasons can be marketing, the way the product is introduced to the customers. Marketing issues will be discussed in the following sub-chapter.

A distinction is made between *an eco-traveller* and an *eco-site visitor* (Flogenfeldt 2006). To be able to characterize a trip as sustainable ecotourism, the whole trip has to be considered, including the traveller's motivation. If the motivation is to visit an ecotourism destination, then this person has to be labelled as an eco-site visitor. Only when the travel aspect also is considered will the person be labelled an eco-traveller. It is expected that an eco-traveller is more environmentally concerned than an eco-site visitor because this person considers every stage of the travel up against its sustainability. Marketing efforts within the tourism industry seem to focus on attracting eco-site visitors and not real ecotourists. The Basecamp Explorer example used earlier is valid here as well, attracting tourists that want to experience ecotourism and not concerning themselves with the transportation. As Snorre Slettvold argues: "If you look at the concept ecotourism, you should not back any form of tourism at all. Because, in a global perspective, the tourists themselves break with the concept's intentions" (Slettvold: interview 18.11.08). The definition of ecotourism is quite clear in what is expected of the tourist. In the real sense of the definition only an eco-traveller will fit the bill, while an eco-site visitor can not be characterized as an eco-tourist. Then again, it depends on the choice of transportation. One that travels long distances with the use of for example air transport, can not be characterized as an eco-tourist. This means that an eco-traveller would never

consider any travel taking place far away. An environmentally concerned person has to consider distances as a part of the motivation for travel.

2.2.4 Marketing issues

When studying the many internet-sites that mention ecotourism it becomes clear that it is a widely used term with different interpretations within the tourism industry (See for example Basecamp Explorer or GAP Adventures). Wight noted that: "operators have not changed their itineraries; they just use the word for marketing purposes" (Page et al. 2002:254). Green and eco are terms that will increase interest and sales. This has caused the excessive use of these terms in marketing. A result has been a confusion concerning what can be characterized as ecotourism. It has also caused the term to suffer a lack of credibility among consumers and among others like government officials, local politicians and local inhabitants. It has been said that: "Travel companies contemplating tours to exceptionally delicate areas may find that a particularly fragile condition exists, either in terms of the wildlife population or the indigenous human population that would make visitation too harmful or corruptive. Regardless of accessibility for tourism and its potential value for a travel company or local economy, attracting travellers to such a destination would be irresponsible" (Page et al. 2002:257). Exactly this has happened when it is being misused in today's marketing (Se for example Seychelles Folke et al. 2006:154). The term ecotourism is being used to sell products that eventually will harm aspects of the natural or social environment at the destination, the sole motivation being the value it brings the travel company. No consideration is given to the meaning of the term. They are deliberately fooling the travellers in some cases. In other cases the travellers know they are being fooled but still purchase the product as a means to ease their environmental conscience. There is a green washing of ecotourism products in Scandinavia. "Do operators simply not know about the global environmental consequences of travel or do they not care?" (Folke et al. 2006:163). A conclusion might be that if it were economically interesting to care, they probably would. But as long as they can keep earning money by using the term

“eco”- without any costs or implications attached to the term, they will keep misusing it.

Although the above discussions have shown that tourists probably travel for the experience and the activity’s sake and not for environmental concern, it is still an important part of ecotourism. One would thus expect marketing of ecotourism products to address the green consciousness of tourists. However, an analysis of Swedish ecotourism tour operators and their advertisement campaigns reveals that marketing is based on selling unique experiences, rather than on sustainable tourism products fulfilling the criteria of ecotourism (Gössling 2006:89). Conservation and education has today almost become an invisible part of marketing, although the definition of ecotourism states their importance. Can this be a reason why, as stated above, that environmental aspects have become unimportant as a part of the traveller’s motivation? This can become a question of: what came first, the chicken or the egg? Are marketing campaigns the way they are because of the traveller’s preference, or is the traveller’s preference the way it is because of marketing campaigns? The important finding above is that ecotourism tour operators focus mainly on the experiences and activities to sell their products, and one can ask whether this would be the case if the product actually were an ecotourism product fulfilling the principles and requirements.

Johnny Loen, who works in the Area and Environmental Conservation Department in Møre and Romsdal county, argues: “If marketing of this concept becomes extensive and as a result ecotourism becomes a growing market segment, the danger is that the concept disappears. Because it is understood that it should be something exclusive and small-scale” (Loen: interview 18.12.08). This, of course, is a realistic concern. Two of the main principles in ecotourism are low impact and small scale. But marketing exists to attract attention and raise interest for a product. The way the market system works today is to continuously attract more attention, otherwise the company would lose their competitiveness resulting in a worsened economy. The danger is that this will cause ecotourism to become yet another form of mass-tourism, with purely economic interests.

My fieldwork has shown that the respondents share the same concerns when it comes to marketing. Jan Sverre Sivertsen argues that: "The concept of ecotourism is worn out. There do not exist any standards or certifications today that ensure correct use. Very few actually use it with the right to do so while the majority use ecotourism as a marketing stunt. The challenge is to fulfil what is being marketed" (Sivertsen: interview 25.11.2008). And Stig Roar Husby argues that: "To what degree will one be able to develop a product that satisfies the criteria in the concept? If one is successful, only the extent of the development can cause conflicts" (Husby: interview 10.12.2008). Also Ane Brunvold shows her concern about marketing and ecotourism: "It is difficult to see how ecotourism will ever be carbon neutral. For me the concept is more a marketing stunt than actually having any substance" (Brunvold: interview 04.12.08).

2.2.5 Ecotourism and local development

Ecotourism and tourism in general are often seen as important industries when it comes to economy, especially in de-centralised areas and in developing countries (Page et al. 2002). It does not take many resources or many hours of labour to be able to offer something that tourists would find interesting. The tourism industry has been described as: "renting out local environments to visiting strangers, and the issue is not only whether the rent covers the maintenance cost, but who receives the rent and who pays the cost" (Buckley 2009:87). Economic issues are therefore complex when considering tourism. This complexity will not be the main focus of this thesis. Ecotourism is described as having the opportunity to produce low-cost attractions since it is based on appreciation of natural areas (Page et al. 2002:255). As long as there exists unique and varied nature in and outside of protected areas, the basis for developing ecotourism exists. "The intended outcome of ecotourism is the development of tourism as a sustainable economic resource for the destination" (Page et al. 2002:257). In this view, ecotourism allows the goals of sustainability and profitability to be met simultaneously. But, in my fieldwork, concern for the economic issues where stated.

Knut Støbakk comments that: “With ecotourism follow restrictions, if ecotourism is developed at the expense of mass-tourism, it will not be favourable for de-centralized communities because it is mass-tourism that creates jobs and economic stability” (Støbakk: interview 28.11.08). And as Britt Giske Andersen, local inhabitant on Giske island, argues: “Here nobody uses the name ecotourism because of the requirements necessary for it to qualify as ecotourism. It is nearly impossible when considering the resources needed to meet the requirements” (Andersen: interview 27.11.08). The respondents were concerned with the restrictions ecotourism brings with it and if they are economically attainable. Questions asked are if these restrictions will have any influence on other parts of the daily life. If changes have to be made for example in the way businesses are managed and if it closes of areas for locals. The overall concern is how to make ecotourism economically viable. The local respondents predict a negative attitude towards ecotourism if it either comes in the way of developing the kind of tourism they have today or if ecotourism does not generate the kind of profits expected. Also mentioned during the interviews was the need for compromise. If ecotourism is profitable, it will be because of all the compromises made, both with the concept itself and externally towards other industries and inhabitants. Compromises could, among others be expansion or deliberately not following the main principles that constitute ecotourism, the end result being a product that would not strictly fulfil the requirements or principles of ecotourism.

The economic scale of ecotourism depends on how ecotourism is defined: in a strict sense or as nature based tourism. In this thesis, following the definition by Fennell (2008), ecotourism is seen in a strict sense, and does not include everything nature-based tourism includes. “Ecotourism in its strict sense is thus rather small globally, perhaps as low as a few hundred millions of dollars annually” (Buckley 2009:83). But otherwise the tourism sector is seen as economically important. For example in Australia, where the outdoor and adventure sector makes up one-quarter of the overall tourism, the total economic scale is approximately 20 billion dollars annually (Buckley 2009). It is estimated that ecotourism in Australia employs 6500 people, comprising of 600 operators.

Each operator, on average, employs 10 people. Although this seems to be a high number of people working within ecotourism, it can be questioned whether all the operators can be classified as ecotourism operators (Page et al. 2002). Therefore it is difficult to estimate the economic significance of ecotourism. Ecuador is a country with one of the world's highest biodiversity. Tourism is the third largest foreign exchange income source. Ecotourism has become an important part of the nation's tourism growth strategy (Wood 2007). Here ecotourism is seen as an economic development alternative for traditional people who are living of the land. In this context: 'Ecotourism offers a highly unusual, diversified means to spread economic development to rural and traditional peoples living far from major economic centres' (Wood 2007:169). Ecotourism in Ecuador has created many small business owners and generated profits at every level of society using entrance fees and rent as main income sources. An example is the Napo Wildlife Centre, situated by the Napo river, that provides 49 percent of its profits to the local Quichua community and 85 percent of its employees are from the local village (Wood 2007). This shows the potential ecotourism can have on local employment and economy. In Austria, Green Village is a program which is designed to allow local communities to accommodate the growing demands of tourism in a sustainable way (Fennell 2008). This program encourages villages and towns to incorporate solar panels, restrict building heights to no more than three storeys, keep parking places a minimum of 80 meters away from buildings, keep motorways at least 3 km away from Green Villages, restrict vehicular traffic through villages, recycle, restrict building to the town site only, eliminate single-crop farming, discriminate in favour of sustainable craftsmen, build hotels using natural products, insist that farmers be able to sell their products locally and designate cycle paths (ibid). It is thought that the locals and the tourism industry will benefit from this type of philosophy. But when considering the above mentioned points, it puts clear restrictions on local development and necessitates changes in the way the community has functioned until the development of ecotourism. In Tanzania tourism is seen as their best hope for development, and ecotourism (to varying

degrees) is a model they wish to pursue (Honey 1999). But it has shown that, although benefits have clearly increased, ecotourism projects have not lead to real empowerment of local people. "Many of the communities around Tanzania's parks are now getting tangible benefits from gate fees, tourism projects, and hunting concessions" (Honey 1999:257). The locals get benefits, but they have no say in how the tourism projects or parks are run. Even though ecotourism has given tangible benefits to communities, empowerment is still a great challenge.

In Norway it is said that ecotourism is as good as non-existent. "(...) ecology, ecotourism and even sustainable tourism are almost non-existent in the country" (Viken 2006:38). The concept is not perceived to be central in the Norwegian tourism industry or among the public. Some local farmers and others are starting to use the concept. Today there are 10 officially certified ecotourism products in Norway, for example Lofoten kajakk in Kabelvåg and Matsafari in Stavanger (GRIP 2009). Only time will tell what kind of local development opportunities ecotourism might have for communities in Norway.

2.2.6 Summary- positive and negative aspects of ecotourism

When considering Fennell's (2008) definition of ecotourism, this form of tourism seems sensible and low-impact. Following this definition the travel activity should be low-impact, non-consumptive, locally oriented and educational. And on paper these principles seem to fit within sustainable development. It is also underlined that this type of tourism should contribute to conservation of the natural areas it relies on. It is seen as an important source for the local economy, especially in de-centralized areas and developing countries. Ecotourism has the opportunity of producing low-cost attractions which gives opportunities for people with few resources. On the other hand, when one starts analyzing ecotourism, aspects become visible that makes it difficult to see how the definition ever will live up to its name. Often, the difference between a destination focus and a total trip focus or an eco-traveller and an eco-site visitor is the reason why some believe ecotourism is feasible while others do not.

Transportation is needed in any form of tourism and this is why tourism is seen as one of the most crucial challenges to sustainable development. Air and car transport contradicts the idea of ecotourism as sustainable. Ecotourists often use air and car transport since their destinations are difficult to access by public transport. Studies have shown that ecotourists do not differ in their travelling patterns from city and spa tourists. One outlook is to become a technology optimist, relying on new technology to make the transportation sector more environmentally friendly in the future. Others say that technology will not save the day because the number of people travelling and the distances travelled are increasing and they will outweigh the gains from new technology.

The ecotourist often enters ecologically sensitive areas and seek out cultures and communities that might not have the facilities necessary to make the impacts from tourism as minimal as possible. This access will leave marks and will have impacts on local environment and communities. For some level of control is low in ecotourism. This means that controlled access and controlled small-scale activities will be difficult. It is questioned whether the tourists' motivation for travel is concern for the environment or if it is the experience and activity that is the deciding factor. Therefore it is difficult to distinguish between an ecotourists' or a mass-tourists' motivation for travel. It becomes clear that most of the ecotourists that exist today are eco-site visitors, who do not weigh up every aspect of the travel against sustainable principles. A person travelling long distances can therefore not be characterized as an ecotourist.

Another negative aspect with ecotourism is the fact that it is an often misused concept in marketing to attract more tourists rather than actually being a product that the principles of ecotourism would support. The attraction of more tourists can result in that the growing segment no longer can be characterized as small-scale and having low-impact. This has caused confusion concerning what ecotourism is and has weakened the credibility of the concept. Marketing of such products are mostly concerned with experiences and not whether the products fulfil the criteria of ecotourism. Concern is also placed on the economic

opportunities ecotourism brings. The overall concern is how to make ecotourism profitable. Some commentators say that to be able to make ecotourism profitable in Norway the need to compromise will be necessary. The principles of ecotourism bring with them restrictions that might harm other types of development or industries in the area. If the negative aspects outweigh the positive, ecotourism has to be questioned. And when analyzing ecotourism, in reality, can it be called sustainable?

It has become clear that wind power and ecotourism are quite paradoxical and not as straight forward concepts as many believe, especially in the light of sustainability. The discussions in this chapter have shown a complex situation. Each concept is connected to both positive and negative aspects. It is a situation that affects different people at different levels as well as the environment. Wind power and ecotourism represent implications for the environment, human health, aesthetics, culture, local development, transportation, travellers' motivation and marketing. Finally, when wind power and ecotourism are developed they are users of the same natural environment and resources. This complex situation, consisting of different views and conflicts between disciplines, will be the main theme in the following chapters.

3. PERSPECTIVES OF DEVELOPMENT ACTORS

It has become clear through an examination of previous research and documents and through analysis of the interviews that wind power and ecotourism bring with them heated discussions, separately and in combination. The previous chapter has described quite complex situations that both wind power and ecotourism contribute to. The different aspects mentioned under both concepts during the last chapter can be interpreted differently, which results in the situation we are in today, some supporting the development alternatives, while others oppose the development. Both wind power and ecotourism have wide reaching effects on different parties, whether they are directly involved or not. As a result opinions have been voiced from many different actors, for example the actors represented in this thesis. The objective of this chapter is to give the reader a general view of the main arguments that are used to emphasize the parties' views based on findings during my fieldwork. Also, this chapter is used to shed more light on the complex situations commented on in chapter 2. Chapter 3 will consider the development actors I interviewed, excluding local inhabitants. The local inhabitant views and arguments will be thoroughly discussed in the next chapter when community perspectives are analysed in conjunction with impacts on local communities and environment.

Development actors are understood as those interested in or affected by sustainable development and the development of wind power and ecotourism. These actors will therefore represent a wide array of different disciplines. The development actors represented in my thesis are: public authorities; wind power developers; tourism industry and environmental organisations. They are all interested parties when considering wind power and ecotourism separately or coexisting. At the same time, a change towards a sustainable future will in some way affect them all.

3.1 Public authorities

Considering the situation the world is in today it becomes clear why wind power and ecotourism are on the public agenda, wind power as a means of reducing climate gasses globally and ecotourism as a means to minimize local environmental impacts of tourism ventures. Both represent a healthier way to develop in the future. Public authorities have put them on the agenda but in varying degrees and with different argumentations and objectives. The representatives I interviewed seemed to agree about the importance of having renewable energy on the agenda. Also, the need for more energy was pointed out, considering the ever growing levels of energy consumption. Bjørn Tømmerdal, mayor of Ålesund municipality, comments that: "The discussion about renewable energy is topical here in Møre and Romsdal. This is a county that periodically experiences energy shortages because of existing energy-demanding industries" (Tømmerdal: interview 25.11.2008). Renewable energy could be a way to meet these needs, wind energy being one of them. The reason for developing wind power projects is directly linked to the government's main objectives. In 2006 the Ministry of the Environment established a main objective of reaching 30Twh of renewable energy production in conjunction with energy efficiency within 2016 (Miljøverndepartementet 2007, June). ENOVA has an objective of 3Twh wind energy within 2010, as a means to reach the main objectives within 2016 (ibid.). Today approximately 1Twh wind energy is either in operation or under development in Norway. Reaching the objectives might not be realistic, since Norway is still far off, but the push for wind energy still exists. The respondents see wind power as a sustainable way of producing energy as long as it is based on renewable resources and does not inflict harm on other important issues within sustainability and on areas with unique natural qualities. As Stig Roar Husby, leader of the Environmental Impact Assessment section in the Ministry of The Environment, argues: "Wind power in Norway demands large areas, which reduces the possibility of alternative uses. Interference with the environment might not be reversible" (Husby: interview 10.12.2008). And Bjørn Tømmerdal

sees: “A massive development of wind energy as a danger for the natural impressions we are trying to create, also for the local inhabitants” (Tømmerdal: interview 25.11.2008). As pointed out here, the main concerns are the impacts on biodiversity and the impact on other industries that the community might rely on. At the same time aspects of placement and technology are important issues. If these aspects were not considered, the use of natural resources for wind power was not seen as sensible by the representatives. Also, the realisation of wind power project was a concern. As Johnny Loen, who works in the Area and Environmental Conservation Department in Møre and Romsdal argues: “The energy sector in Norway is too obsessed with oil and hydropower which has made it difficult for wind power projects to be realized. There are development expenses that the government are not willing to be responsible for” (Loen: interview 18.12.2008). Today’s energy sources are at the moment seen as satisfactory. Improvements to existing technologies are highest on the agenda, in order to find ways of optimizing the energy extraction from oil and hydropower. The continued search for and extraction of oil raises concern. This is a fossil and non-renewable energy source Norway relies on. On the other hand, with hydropower it seems sensible to continue research since it is a renewable energy source. It was pointed out in one of the interviews that wind power and hydropower can supplement each other. When the wind does not blow, energy can come from hydropower, but when it blows, energy from hydropower can be stored, making both wind power and hydropower more efficient and profitable. But even though wind power is seen as a renewable energy source that is welcomed in Norway, the willingness to make it economically interesting and realistic does not seem to exist today, shown by the lack of reaching the goal of 3Twh, with only one year still to go. On the other hand, offshore wind energy is seen as interesting, when it comes to the visual impacts and the energy production efficiency. The interviewees presume that the conflict levels will be lower although still present.

There is consensus among the public authorities interviewed on there having been too little research on time and acceptance aspects of wind power, but

that it is an interesting issue. The question is whether in time acceptance for wind turbines will grow or decline. Whether local communities eventually will be proud of their wind turbines is unsure, but presumably there will always be opponents to wind turbines because they are visually controversial. Stig Roar Husby comments: "There is no doubt that wind turbines can be a symbol of sustainable energy production, but it will not be easy to market a big wind farm as something local and cosy" (Husby: interview 10.12.2008). This comment is quite important. It is seen as vital, for a wind power project to be successful, to have the acceptance of local inhabitants (Hammarlund 2002:107). Acceptance for wind turbines has however proven to be difficult to create. Johnny Loen gives an example from Smøla Vindpark: "I believe that with time comes acceptance, this has already happened in Smøla" (Loen: 18.12.2008). A study carried out by Statkraft (2007) interviewing 429 people living in the wind power municipalities Smøla, Hitra and Lebesby, shows that 72 percent are positive towards their local wind turbines, while 12 percent have a negative opinion. The same study says that 31 percent feel that the wind turbines have destroyed the landscape and 51 percent regarded the wind turbines to be a tourist attraction. An important comment is that this study is commissioned by a wind power project developer. But the numbers show that not everybody living next to wind turbines are opponents and tourism opportunities are seen as possible in the local communities. On the other hand, it does not seem fair to ignore the 12 percent that have a negative opinion. Even if you live in a wind power municipality, you might not be directly affected by the turbines visually or otherwise. Perhaps these 12 percent are the ones living closest, being directly impacted. The study does not say anything about this aspect. In this light, the 72 percent that are positive might be people harvesting benefits and not feeling the sacrifices made. Generally in Norway, 80 percent are optimistic about wind power as an energy resource (SSB 2006). Even though there is scepticism about the acceptance of any given wind farm, generally Norwegians are optimistic about this technology.

The interviewed subjects are sceptical to the notion that wind turbines can be removed without any trace. When the park, after 25-30 years no longer is in

operation, it will not be problematic to remove it visually, but the foundation and other parts of the construction, for example maintenance roads, will be harder to remove. If these parts of a wind turbine are to be removed, it has to be a requirement in the licence given to the developer. And, as Stig Roar Husby comments: "Today, this is not usually a requirement in the licence, only the turbine itself is required removed when it is no longer in operation" (Husby: interview 10.12.2008). As long as it is not a requirement to remove foundations, roads and power lines, the impression is that nobody will take responsibility for the removal. The result is that a wind turbine could theoretically be removed without any future trace, but in practice this is not done.

Nature based tourism is seen by the respondents as the most important aspect of tourism in Norway, and as long as ecotourism can become an attractive product then this type of tourism is seen as positive. As Johnny Loen comments: "Given that we shall have tourism, ecotourism should be one of the main ventures" (Loen: interview 18.12.2008). National tourism objectives include that Norway should take part in the international growth of tourism and be competitive and profitable, using nature as a competitive advantage (Miljøverndepartementet 2007, June). Demand for ecotourism is growing and Norway can potentially take a strong position in this niche market because of its unique natural resources (ibid.). Knut Støbakk, mayor of Giske municipality, argues: "Tourism is very important for this district, Møre and Romsdal. It gives us the opportunity to develop the entire area" (Støbakk: interview 28.11.2008). Locally the argument is that tourism based on nature gives the district both development opportunities that otherwise would not be possible and a tool to minimize centralisation. Bjørn Tømmerdal comments that: "The tourism industry in this district is based on nature and the distinctive features of the people living here" (Tømmerdal: interview 25.11.2008). These distinctive features are seen as the reason why Møre and Romsdal is one of Norway most visited areas by tourists. Some areas of Møre and Romsdal are seen as suitable areas for ecotourism but the respondents uttered scepticism whether there is a market for it. With no market, the fear is that there will not be anybody willing to start

ecotourism ventures. The local public authorities I interviewed saw the need to control tourism in a way that minimizes impacts on the local communities, for example controlling what tourists can see and where they are allowed to go. How this need and ecotourism could potentially work, was not commented upon.

Some representatives felt the conflicts that can arise between wind power and ecotourism are manageable and not detrimental because wind power cannot be developed everywhere, and if planned correctly it will not affect important touristic areas. It was also commented that the possibility of wind power becoming a part of ecotourism, as clean energy, could be possible as long as the traveller and the local inhabitants had a positive opinion on wind power. As Bjørn Tømmerdal comments: "Wind power is a form of energy production that is based on nature's own resources, and for us it would be natural to have wind power become a part of the ecotourism product" (Tømmerdal: interview 25.11.2008). On the other hand, the concern for area use and alternative land use is pointed out. Knut Støbakk argues that: "Some say wind power is visually unattractive and symbolized as litter in nature. The result might be that ecotourism would not have a future in this area" (Støbakk: interview 28.11.2008). Others mentioned that if an area already has a working ecotourism product with resources invested in this venture, it could be the deciding factor not to develop wind power. All sides are represented, those who feel wind power and ecotourism could work together, and those who feel that they would be mutually detrimental with the best solution being only to have one or the other.

When it comes to wind power, the authorities see themselves as the managers of the natural resources. But also the importance of local empowerment and local participation in decision making was underlined. When it comes to other uses of natural resources, it is the county or municipality that should be the decision makers. As Stig Roar Husby comments: "In the Norwegian planning system the municipality has no veto" (Husby: interview 10.12.2008). The use has to happen within the guidelines set up by the government and within global objectives. And it was commented that, as

protected areas become scarce and unspoilt areas become more seldom, the need to protect certain areas is even more important today because they are seen to have a high value. However, this does not mean that use of these areas can not happen, as commented on in my fieldwork. There is a difference between use and over-use.

3.2 Wind power developers

Norway is a country where large areas have optimal wind conditions for wind power (NVE 2009). Although the geography is characterised by mountains, valleys and fjords, the wind conditions along the coast are in some areas very stable. This is why wind power projects in Norway are usually planned along the coast, on-land or offshore. The wind power project developers' arguments for producing wind energy are divided into two. The first reason mentioned in my interviews was that Norway is in need of more energy, especially Mid-Norway where energy shortages are experienced. The other reason mentioned is the global climate crisis where the need for renewable energy sources is a key issue. Wind power is here seen as a solution to two specific and highly current problems. At the same time a sense of frustration was felt towards the Norwegian government, because in reality it is felt that wind power is not actually put on the agenda. As Harald Dirdal, wind-farm project developer in Havsul, comments: "It is impossible to answer how Norway today is providing for the development of wind power, because in reality it does not exist. ENOVA is given money from the state to grant different projects, and this is the only way the state is providing for this type of development" (Dirdal: interview 20.11.2008). It cannot be said that wind power has high priority in Norway today. From the project planners' point of view, wind power is characterised as sustainable energy production. Wind is a renewable, never ending resource. It was argued that all energy production that makes the emission levels drop is a better way of producing energy than the original production. A clear argument from the developers' point of view is that we need more wind power, and it needs to be seriously put on the

public agenda. Harald Dirdal asks an interesting question: "Are we willing to change nature to save the world?" (Dirdal: interview 20.11.2008). From a wind power developers' point of view the answer is clear. To use natural resources for wind power is seen as sensible and necessary, resulting in nature being changed.

It can be seen that in all the places where wind power exists today, a large amount of the local inhabitants are positive towards the wind farm. As Harald Dirdal argues: "A wind farm is positive for the local communities, it creates employment, it creates optimism, it is used in marketing and it strengthens the local economy" (Dirdal: interview 20.11.2008). The local inhabitants are seen to be proud of the wind turbines and the counties affected are using them actively in marketing. The visual problems will exist because some people find them visually disturbing, while others find them to be beautiful. It is mentioned that the reason why society thinks there are high conflict levels or that conflict exists, is the way media is directing its focus. It is not a balanced view. The respondent generally agreed that wind turbines have impacts on local communities and environment, that these are not always positive, but it is the balance between local impacts and national benefits that was seen as the issue. All forms of development will have uneven impacts and effects. The respondent is concerned with the placement of the wind farms to areas where conflicts will be minimal. But as Harald Dirdal comments: "We cannot always take local considerations, not on all levels, because then we would not have any form of development in Norway" (Dirdal: interview 20.11.2008). Globally there is a need for renewable energy, but conflicts at a national and local level have slowed down the process of developing wind power and will continue to do so.

The fact that wind turbines can be removed without leaving any trace was stated to be theoretically true by wind power developers. During the fieldwork it was commented that normally the foundation and the roads would be left behind after a turbine is removed. But it is possible to remove the foundation and dig away the roads, and after twenty of thirty years, one could describe the area as untouched by wind turbines. The respondent states this is realistic since wind

turbines do not cause any major interference with the environment. Also mentioned is that the natural resources in the world do not only belong to Norway. As Harald Dirdal comments: "The differences in the world and within Norway have to be evened out, so that we all can have access to the same resources" (Dirdal: interview 20.11.2008). The use of natural resources in one area can benefit people in other areas.

The tourism industry is seen as fragmented, with small scale products run on a hobby basis, often unimportant in an economic sense, the main feature and attraction being nature. Harald Dirdal comments that: "My feeling is that the tourism industry in Norway has a wrong focus. Rather than only nature, which many other countries also use, Norway should combine nature and experiences. Wind turbines could be a part of such experiences" (Dirdal: interview 20.11.2008). To base products solely on nature could be experienced as boring over a longer period. By mixing in experiences, travellers might stay longer and make the industry more profitable. Wind power and ecotourism are potentially seen as working together in obtaining sustainable development because they both portray something positive, ecological, renewable and of benefit to the world. But it was dependant on how ecotourism was defined (as discussed in chapter 2).

3.3 Tourism industry

Møre and Romsdal is an area of Norway that has a high potential for tourism, also for alternative sustainable forms of tourism as described in the introducing chapter. It was also characterized as a windy county, as one of the best areas for optimal wind energy production. It is this mixture of wind power and tourism venture that is the cause for most concern when talking to representatives from local tourism operators, especially considering the visual effects. Research has shown that tourists are sceptical towards wind turbines. Research Vestlandsforskning has carried out and are still carrying on, shows that tourists are sceptical towards wind energy production along the coast of Norway (Nationen 2007). The survey showed that 18 percent of tourists would not travel

to a specific area where more wind turbines are planned. For a small Norwegian coastal community 18 percent could be detrimental and would mean the end for many local tourism operators. This type of concern is not only present in Norway. For example in Great Britain, Northern Ireland or Greece, concern for areas like the Lake District, the coastal areas in Northern Ireland and the island of Serifos has been growing(Stokes 2005, BBC News Online 2002, Kakissis 2007). All these areas rely on the income from tourism. The tourism representatives I interviewed were positive towards a wind turbine being a tourist attraction, but whether this could then be characterised as an ecotourism attraction was unsure. Terje Devold, leader of the tourism company 62 Grader Nord in Ålesund, comments that: "Ecotourism is based on close natural attractions and experiences. The wind turbines are big industrial installations which can reduce the attraction of such natural experiences" (Devold: interview 27.11.2008). To underline this point, Jan Sverre Sivertsen, department leader of Innovasjon Norge Tourism in Møre and Romsdal, argues that: "The typical ecotourist travels, not to consume, but to observe nature" (Sivertsen: interview 25.11.2008). If one backed the development of wind turbine attractions, it would not be development of ecotourism in their view. It would be more difficult to develop ecotourism in Giske municipality with 178 wind turbines looming in the background. Some commented on the friction between wind power and ecotourism which could be detrimental for a sustainable development, or at least could slow down the process. A clear view from the tourism industry is to have either wind power or ecotourism in one area.

At the same time, the representatives I spoke to were positive towards wind power as a renewable energy resource and that the use of natural resources for wind power development would be sensible under certain conditions. The main argument is that wind energy is desirable but it needs to be placed in an area where the visual impacts will be minimal. As Terje Devold argues: "Yes, we want wind power, but keep it hidden. The solution is wind power far out in the sea. Wind turbines could become a part of an ecotourism destination, producing clean energy, but it depends on how ecotourism will be defined" (Devold:

interview 27.11.2008). Jan Sverre Sivertsen also comments that: “They can be used as a symbol in marketing to show environmental concern” (Sivertsen: interview 25.11.2008). As long as they are placed in an area that will minimally inflict impacts on tourist attractions, mainly nature based attractions, then the local tourism operators were considerably positive towards wind power in their vicinity. And it was the offshore based wind farms that were seen to have the greatest potential in achieving this because then the two industries would operate in different areas. But there was scepticism towards whether wind turbines could ever be removed without leaving any trace. This underlines the negative view of wind turbines, because they will change the landscapes the tourism industry relies on for ever. Also the time issue was commented on. As Jan Sverre Sivertsen argues: “Time has to be used to gain acceptance for wind power projects. Time heals old wounds” (Sivertsen: interview 25.11.2008). There was a clear consensus that in time scepticism towards wind power in the local communities would be reduced and acceptance would grow, even in the most affected areas. Because in time the benefits would become evident and previous fears would be proven invalid.

Ecotourism was seen as a concept that could theoretically contribute to the tourism industry developing in a sustainable fashion. And if ecotourism is what it theoretically portrays, then it would be sensible to use natural resources for this kind of development. Jan Sverre Sivertsen comments that: “This area of Norway is still pretty unspoilt. This means the potential for ecotourism is here. But there is no point if only Møre and Romsdal becomes an ecotourism destination if not the rest of the country follows. This issue has to be taken to the national level” (Sivertsen: interview 25.11.2008). Pointed out in this commented is the difficulty of developing sustainably throughout the tourism industry in Norway because the industry is perceived as fragmented and small-scale. On the other hand there is scepticism towards the concept of ecotourism. They see the potential the county has to develop ecotourism, especially considering the natural resources, but whether it is achievable raises disagreement. Terje Devold comments that: “The transportation issue is a problem for this county. The industry is too fragmented

to be able for all to cooperate in developing ecotourism that is sustainable" (Devold: interview 27.11.2008). Sustainable development, in his view, demands cooperation between all areas in society.

It was argued by the tourism representatives that natural resources are something the whole nation owns, but the locals should be allowed to make use of their local special features and revenues should stay at the local level. The representatives commented that natural resources do not have a great deal of value as long as they cannot be used in some way. Critical comments were aimed at conservation and protection policies in Norway. The arguments were that these principles only lead to areas being overgrown and not even used by local inhabitants. Even though they agreed that a beautiful landscape is subjectively perceived, a lived-in and used landscape was more beautiful than an overgrown landscape.

3.4 Environmental organisations

NGO's play a vital part in supporting alternative and sustainable forms of development. My fieldwork concentrated on environmental organisations in Norway, discussing the concepts wind power and ecotourism. What became abundantly clear was that the different visions and objectives the organisations focused on made their arguments in some parts quite different. The main difference I found was either focus on overcoming the climate crisis or securing biodiversity. This is a complex paradox: If the climate crisis is not taken seriously, temperatures will rise, and species and organisms will die. But the preventive measures to overcome the climate crisis might harm biodiversity. As Snorre Slettvold, organizational leader in Miljøvernforbundet, argues: "For example, Natur og Ungdom (a youth environmental organisation) is very positive towards wind power and that the most important aspect is to save the climate. But then there are others who wonder what the point of saving the climate is if we do not have biodiversity" (Slettvold: interview 18.11.2008). There is a constant balance between protecting species and nature in all situations, which

can mean saying no to preventive measures in the climate crisis. But on the other hand, not to prevent a rise in temperatures will result in a loss of species and nature.

There is consensus that wind power potentially can be a non-polluting way of producing energy as long as it is placed in the right areas, but the degrees of support for the technology vary. As Ane Brunvold, leader of the Climate and Energy Department in Bellona, argues: "Bellona are positive towards wind power because it is a clean type of energy, and in Norway we have many areas where this type of development is possible" (Brunvold: interview 04.12.2008). While Øystein Solevåg, member of the board in Naturvernforbundet in Møre and Romsdal, argues that: "We are positive towards wind power but against wind turbines. We want the clean renewable energy it represents, but not the interference with the environment the wind turbines cause" (Solevåg: interview 16.12.2008). Snorre Slettvold comments that: "We have been highly critical towards wind power, not because we are against wind power in itself, but because of the consequences it has on the environment and that we feel it will only lead to a higher level of energy consumption" (Slettvold: interview 18.11.2008). Miljøvernforbundet are sceptical to whether wind power or other types of alternative energy will replace oil and gas, or will rather be a supplement to fossil fuels making it possible for humans to consume more energy. Potentially wind power could be sustainable at a local level, but to construct wind turbines along the Norwegian coast so that the energy can be exported is neither seen as sustainable nor viable. Miljøvernforbundet also sees aesthetics as part of environmental conservation, and as wind turbines are visible, it finds them disturbing. On the other hand, Bellona see wind power as a sustainable form of energy production, because of its zero emission, at the same time stating that all forms of energy production have impacts on the environment. Naturvernforbundet agree with Bellona, although with caution. They state that wind power has the potential of being sustainable, but the balance between climate change and loss of species is something that has to be considered. The representatives I interviewed agree that wind power put claims on large areas,

often vulnerable areas along the coast of Norway, impacting the environment and the communities surrounding it.

Whether or not local communities could be proud of wind power production in their district was not agreed upon. Some respondents said that people already are proud of their wind energy and that it could work as a symbol for environmental concern. Others said that it will be difficult to create this kind of feeling around something as controversial as this, and yet others comment that the turbines could easily work as something to hide behind, to ease ones conscience when consuming energy. It is also debated whether offshore wind energy is the best solution for the future. As Ane Brunvold states: "It is not unproblematic to develop offshore wind power even though it is further from land. It will have consequences, just on a different type of environment. Conflicts with other industries might occur, for example with fisheries" (Brunvold: interview 04.12.2008). Øystein Solevåg comments that: "We do not know much about the sea environment, we know much more about the environment on land. The consequences might therefore not be clear. But the potential for wind production offshore is great" (Solevåg: interview 16.12.2008). And Snorre Slettvold argues that: "We are more positive towards offshore wind energy because the impression is that conflict levels will be lower. But it will be more expensive" (Slettvold: interview 18.11.2008). They agree that the need for more renewable and clean energy is vast and therefore the need for testing new technology exists. But as Snorre Slettvold comments: "To be a technology optimist is not the same as taking care of nature" (Slettvold: interview 18.11.2008). Waiting for technology to save the future can be detrimental because it discourages changing for example consumer patterns. Meanwhile the development continues, and the technology once seen as a saviour, might in the future not be as environmentally friendly as first thought. And while technology is being developed, emissions and other problems might have increased. Even newer technology is promised for the future that will neutralize these new problems. Again, this gives the consumer a reason not to change habits. This can become a dangerous vicious circle.

The representatives do not agree with the statement that wind turbines can be removed without any trace. As Ane Brunvold comments: "It is a truth with modifications, necessary infrastructure has to be constructed" (Brunvold: interview 04.12.2008). And Snorre Slettvold comments that: "In theory it might be so. It will take large amounts of time to erase all traces, and who will pay for the expenses? It is not likely that the area will ever become identical to the way it was pre-construction" (Slettvold: interview 18.11.2008). The general agreement is that traces could be made minimal.

The tourism industry in Møre and Romsdal is considered to be small on the whole, but some places, like Ålesund and Geirangerfjorden are tourist magnets. The representatives agree that tourism is based on Norway's unique nature. Tourism is also seen as decisive for local communities to survive and to avoid centralisation. But when considering the climate issue, tourism was seen as negative because of transportation and impacts on the natural environment and local communities. On the other hand it was commented that tourism can show people what value nature has, especially unspoilt nature. This can give people a deeper understanding of nature's vulnerability. The representatives agree that ecotourism is a product that tries to minimize stress on the environment and connects experiences with education and knowledge. But they are unsure whether ecotourism is possible. As Ane Brunvold comments: "My feeling is that ecotourism is a concept connected to myths" (Brunvold: interview 04.12.2008). This comment underlines a lack of a certification programme that all the representatives miss. A certification programme would erase the opportunity to misuse the concept. The representatives have problems calling ecotourism sustainable travel, because emissions will occur. But today, they see ecotourism as a healthier alternative than for example mass-tourism. It is also questioned whether ecotourism and wind power could exist in the same area. Snorre Slettvold argues that: "I believe that there will be a direct conflict between the ecotourist and wind turbines. The ecotourist prefers untouched nature, as long as this is the way it is marketed" (Slettvold: interview 18.11.2008). The respondents commented that there exists a paradox between what is characterized as beautiful

and ugly. On one hand tourists find Atlanterhavsveien, one of the world's most beautiful stretches of road, but on the other hand they find wind turbines ugly. What determines something beautiful is subjectively perceived. At the same time some commentators state that it should be possible to place wind power installations in areas where it will not affect ecotourism. A coexistence of these two concepts was seen as possible as long as it is planned correctly.

When it comes to questions about the use of natural resources the organisations also have different views. Miljøvernforbundet feels that natural resources should be used at a local level, but with a long-term perspective, the aim is for local government administer these resources. And, even though nature should be protected and preserved, it can still be used. Naturvernforbundet on the other hand states that it is the future generations that have the right to use natural resources, and not present generations. Local communities should govern these resources and not misuse them. Using natural resources is not controversial as long as it is within limits set to ensure that future generations will not suffer. Øystein Solevåg comments that: "There exists ever fewer areas with substantial distances from technological interference, which is affecting species" (Solevåg: interview 16.12.2008). The aim is to keep unspoilt nature as pristine as possible to protect species and environments. Bellona argues that the public sector should govern natural resources because the local inhabitants would not be able to self regulate, and the consequence will be overuse. They feel that natural resources should be used, but enough nature has to be protected in order to maintain biodiversity. It was commented by all respondents that local communities should be empowered by having a voice in decisions, but not as decision makers.

3.5 Summary of arguments and conflicting views

This chapter has portrayed the views of four different interested parties: public authorities; wind power developers; tourism industry and environmental organisations. It has become clear that views are connected to their interest and how different development alternatives may affect them or others. Also, wind

power is debated more than ecotourism. This could be because ecotourism is still not a very often used concept in Norway. The main pro-wind power argument of public authorities and wind power developers is the need for renewable energy sources and the need for more energy to meet the growing demands. This is a global concern. On the other hand, some environmental organizations say that we do not need more energy, but we need to reduce consumption. Under certain circumstances, public authorities are able to see wind power as a sustainable way of producing energy, but the same time point out that wind power can cause irreparable interference and damages that threatens biodiversity and other industries. Wind power developers see wind power as sustainable and are frustrated with Norwegian public authorities because of their lack of putting wind power on the agenda, and in their view we need to be willing to change nature to save the world. The tourism industry is positive towards wind power technology as a renewable energy resource, but it needs to be placed in an area where the visual aspects will be minimal. Environmental organizations cannot agree upon whether wind power is a positive development because focus on biodiversity or the climate crisis puts wind power in different lights. But they agree that potentially it can be a non-polluting way of producing energy. Time is seen by the public authorities to heal wounds, but they are sceptical whether acceptance for wind power will grow in time. The tourism industry saw eventually scepticism would decrease and acceptance would increase because the benefits would become evident. The study of Smøla shows that factors like distance from a turbine can be crucial in the acceptance of it, while wind power developers say that large numbers of people living near wind turbines are happy and positive. Environmental organizations cannot agree upon whether local inhabitants will ever be proud of their wind turbines. All parties seem to agree that wind turbines, in theory, can be removed without any trace, but in reality this is not the case.

All parties see nature as an important aspect of tourism in Norway. The tourism industry see Møre and Romsdal as an area with high potential for alternative, sustainable forms of tourism, ecotourism being one of them. But the tourism industry is sceptical to whether ecotourism will ever be achievable

because of the fragmented industry. Environmental organizations are afraid that ecotourism is only built up by myths, and that the principles will never be realized. Public authorities viewed ecotourism as positive as long as it can become attractive economically even when following its principles. Tourism is considered to be decisive for the local community by the public authorities in Møre and Romsdal. They argue that tourism gives the area development opportunities that can minimize centralization, but a need for control exists. The wind power developers do not see tourism as having the same importance, characterizing it as small-scale, fragmented, run on hobby basis and unimportant in an economic sense. The environmental organizations view tourism to be decisive for local communities, but in a climate perspective, tourism is seen as negative. An area where the representatives did not agree, not even within the parties, was whether wind power and ecotourism could be developed in the same area successfully. Studies have shown that tourists are sceptical towards wind turbines, and this is a main concern for the tourism industry. The tourism industry was positive towards developing a wind turbine as an attraction, but did not consider this as an ecotourism attraction. A clear view from the tourism industry is not to mix the two.

There is no agreement at municipality, county or national level as who should decide what natural resources are used for. But they all agree that local empowerment is important and that off-shore wind power probably is the best future solution to minimize conflicts. The tourism industry does not put any value on natural resources as long as they cannot somehow be used and criticism is placed on the conservation policies in Norway. Environmental organizations do not agree whether protected areas can be used, but the fear is that protection without use will lead to overgrown areas.

This chapter has had a national perspective on the conflicts and issues, and as shown, on some issues the representatives stand far apart. On other issues there does not even exist agreement within the parties. And on yet other issues, they all agree or have the same views but express them differently. The following

chapter will bring the discussion down to a local level, looking at Sunnmøre, wind power and ecotourism from the perspectives of local representatives.

4. VIEW FROM A LOCAL COMMUNITY IN NORWAY

What kind of effects wind power and ecotourism have on local environment and communities is an important question when considering sustainable development in Møre and Romsdal. Local inhabitants and the local environment will be most affected in a situation where wind power or ecotourism are developed. This because both these concepts, when developed, are space demanding and intrusive locally. Local communities have had quite heated arguments and discussions when faced with wind power while debates on ecotourism are as good as non existent in Norway as we have seen in the previous chapter. Not only have local inhabitants voiced their opinions, other interested parties have had a say in the discussions about effects on local environments and communities. The local community I spoke to, went though the process of planned wind power development along their coast in 2006 and 2007 with the Havsul II project (Havsul 2009). The project in the end did not receive a licence to develop from NVE.

In chapter 2, general descriptions of the effects on local environments and communities were presented. In chapter 3, arguments from different development actors were analysed. This chapter has a focus on Sunnmøre, assessing and interpreting the arguments found during the interviews of local representatives. It is important that as many representatives of a community, from different levels, are represented when discussing effects on local environment and community, otherwise only perspectives of the local inhabitants would determine the analysis for a whole community. The local community will in this thesis consist of local inhabitants, local public authorities, local environmental organisations and local tourism industry. They are all interested parties when considering development of wind power and ecotourism in Sunnmøre. Although some of the local respondents were presented in the previous chapter at a national level this chapter

is concerned with Sunnmøre, a local perspective. The local respondents' imputes are of high relevance for this chapter.

First, impacts on the local environment will be considered. Further, impacts on the local community are discussed. The environment and community are distinguished between because it has been pointed out by the local inhabitants interviewed that effects on humans have been dedicated little space in earlier research. By separating out the community aspect, the possibility of analyzing this aspect more thoroughly is present. Finally, this chapter looks at the communities' perspectives on having wind power and ecotourism in the same district.

4.1 Impacts on local environment

Sunnmøre has a quite unique environment, the Sunnmøre Alps rising high above the fjords that reach far into the country. Along the coast the highest density of inhabitants is found, in large or small communities. The coast consists of islands reaching far out into the sea which has through generations been the lifeline for the people living there. These islands have not seen the type of development as seen in cities. The bird island Runde, Alnes Fyr, Ona fyr and the jugend-style city Ålesund are all examples of unique attractions in this area of Norway (Visitalesund 2009). My fieldwork was concentrated to the islands Giske, Valderøya and Vigra in Giske municipality and the city of Ålesund.

The fieldwork showed a special concern for northern environments when considering wind power and ecotourism. In doing so I find it relevant to mention Ane Brunvold's perspective, even though she is the leader of the Climate and Energy Department in Bellona and not a local representative. "The further north you come, the more vulnerable nature becomes because fewer species exist there" (Brunvold: interview 04.12.2008). As pointed out, when developing wind power or ecotourism, extra caution has to taken about the placement in the northern areas, because wind power puts claims on vast areas of vulnerable

nature and species, while ecotourism can inflict stress and harm on areas not used to this type of activity. Although Sunnmøre is not in the north of Norway, it is situated in the northern environments of the world and is thus more vulnerable.

In my fieldwork I found that the greatest concern when considering on-land wind power in Sunnmøre was the need for infrastructure, like construction and maintenance roads and expansion for transmission lines. It was stated that in a turbine field it is necessary to remove vegetation and drain out the area to build the necessary infrastructure. It was pointed out that wind power development often happens in areas where little or no development has previously existed. As Øystein Solevåg, member of the board in Naturvernforbundet in Møre and Romsdal, comments: "Nature interference in conjunction with wind power development often happens in areas with high quality and with little previous interference. When this happens, it is controversial" (Solevåg: interview 16.12.2008). Even though Sunnmøre is described as having plenty of these types of areas, they are seen as too valuable to be sacrificed. Wind power was described as being a visual pollutant for the environment. Concern is also mentioned for the birds and animals. As Johnny Loen, who works in the Area and Environmental Conservation Department in Møre and Romsdal county, comments: "The turbines have a barrier effect on animals and migrating birds. They also have a direct effect with the danger of collisions" (Loen: interview 18.12.2008). Many species do not feel comfortable with wind turbines in their area. Especially noise is mentioned as an aspect believed to have impacts on local animals.

Offshore wind power as commented on above is a form of development that is connected to a high degree of optimism. For Sunnmøre, or Møre and Romsdal, offshore wind power could still become a reality even though they voted against Havsul II. The sea area along the coast of Møre and Romsdal is still seen as an optimal area for offshore wind power to be developed. The reason why the local community voted against the development of offshore wind power was not only because of the visual aspect, although this was pointed out as a

main concern. I found in my fieldwork that they also were concerned with the little knowledge that exists about consequences offshore wind power can have on the sea environment. As Toril Molnes, local inhabitant on Vigra island, comments: "The danger is if offshore wind power is placed in the middle of spawning fields for cod and herring" (Molnes: interview 27.11.2008). Also Britt Giske Andersen, local inhabitant on Giske island, comments that: "Spawning fields and protected areas for birds have to be considered in the discussion" (Andersen: interview 27.11.2008). Concern is also mentioned when the turbines are fixed to the seafloor. It is feared that too little is known about life in the sea to be able to predict the gravity of the impacts and even what types of impacts it entails. Another question asked is what kind of impacts the turbines will have on the migrating birds, that for example depend on the island Runde. It is feared that it will harm the population at Runde. Generally the feeling is that the placement has to be planned in a way that ensures impacts being minimal, both on-land and offshore wind power. I find it relevant to bring in the perspectives of Snorre Slettvold on this matter, even though he is not a local representative. As Snorre Slettvold, organizational leader in Miljøvernforbundet, comments: "Wind power projects have to be placed in areas were damage is minimal, with minimal I mean to ensure the species survival" (Slettvold: interview 18.11.2008). Biodiversity is seen as the main impacted aspect when wind power is planned and where most concern is placed to avoid according to the local respondents. Considering that Sunnmøre is situated in a northern environment, it is natural that concern is placed with biodiversity because of the vulnerability of the environment.

The local inhabitants I spoke to characterised a beautiful landscape as open, were the sky and the sea meet. This is seen as a view most coastal inhabitants share. At the same time it is commented that: "Natural resources should be protected, but at the same time used. And the use should be decided by the local inhabitants, with public authorities as support" (Andersen: interview 27.11.2008). Their beautiful landscape should be used, preferably by the locals. A fear exists that protection without a right to use will lead to overgrown and lifeless areas. These islands in Giske municipality are small and do not have

resources enough for everyone that wants a share. The local inhabitants agree that it is important to decide how to use the natural resources wisely, but wind power would not fall under that category.

With ecotourism it seems more openness exists towards its development, but it needs to be controlled so that the local communities and environment will not be harmed. Generally a fear of ecotourism causing stress on local wildlife and vegetation was commented on by all local representatives. To illustrate this fear, I find of relevance to bring in the views of Snorre Slettvold and Ane Brunvold. Although they are not local representatives, they utter concern for local environments and inhabitants. As Snorre Slettvold comments: "It is not given that tourism will take place on marked paths or areas" (Slettvold: interview 18.11.2008). Venturing into pristine and fragile nature can result in irreparable damage to plants and vegetation in Sunnmøre. Also a danger of the path widening, at the expense of the nature surrounding it, is present. During my fieldwork it became clear that it was the access issues and economic issues that were seen as potential reasons why ecotourism can harm the environment. Ane Brunvold comments that: "The danger is that ecotourism becomes an expanded version of backpacking that wears out the natural environment. They want to experience the unique, and this is only possible in small-scale. There is a balance between impacts on nature and local inhabitants" (Brunvold: interview 04.12.08). Tourists travelling and exploring in areas not used to human interaction might do irreparable harm to the area and animals, while the local inhabitants of Sunnmøre might feel intruded upon or in other ways impacted. A clear example of a place where this has happened is Besseggen. Although Besseggen is not situated in Møre and Romsdal, it gives a good example of what harm nature-based tourism can cause and what can be expected in Sunnmøre. Situated in the mountain range Jotunheimen, the walk over Besseggen is one of Norway's most popular mountain hikes. Besseggen has become damaged through many years of wear (Sehl 2005). This has resulted in the need to renovate the path over Besseggen and encourage people to keep to the path to prevent further damage. But the damage has already occurred, and the mountain will never be perceived the way

it did many years ago. Untouched, unique and unspoilt are no longer adjectives used to describe this mountain. Another example where unique nature was spoilt by tourism is Geirangerfjorden in Sunnmøre. The fjord is one of Norway's most important tourist attractions and is found on UNESCO's world heritage list. It has been stated that during high season, exhaust from cruise ships and buses covers the fjord (Orskaug 2007). The ships are continuously being extended and even more people gain access to this unique fjord in Sunnmøre, characterised by National Geographic as the world's most unspoilt destination. Whether or not this description still is true should be debated.

Not only do the access issues present a fear for local environmental impacts, also economy is commented on. Bjørn Tømmerdal, mayor of Ålesund municipality, argues: "To be able to make ecotourism profitable perhaps one needs to compromise. Then the question is what happens to the concept ecotourism when it experiences too much compromising?" (Tømmerdal: interview 25.11.08). As long as it is not made profitable, there might not be any actors willing to develop such a product. Since ecotourism is seen as difficult to make profitable, expanding the business is a way to create more profits. Some commentators argue that with all types of tourism a development of some kind is usually expected, for example accommodation, attractions or accessibility. When it is expanded in vulnerable environments, damages can be severe. More and more tourists come to these areas. The product that then emerges might no longer be characterised as ecotourism since it has compromised on so many levels to make it profitable. Meanwhile it is the environment that pays the price. An example of how expansion of a nature-based product has impacted the environment surrounding it is Trollstigen in Møre and Romsdal. Trollstigen is one of Norway's most visited attractions, a mountain road consisting of eleven hair pin bends up the valley side to Trollstigen plateau. From the top there are beautiful views in all directions and of the surrounding mountains. The new plateau was predicted finished in 2007, with two view platforms, car park, museum and souvenir- and cafe-buildings. All the original facilities where demolished to make room for the new installations (Meland 2004). Although the

development is said to follow nature's premises, it is clear that the development facilitates tourists to stop and use money. And although the development is tastefully executed, nature has been reduced to create something commercial. The area can not be characterized as containing the same natural and unspoilt value as it once had, before it endured two rounds of facility development.

4.2 Impacts on the local community

The local inhabitants I spoke to agree that the main problem with wind power is the visual aspect. Especially the size of the project planned in their area, 178 turbines offshore, was the reason for the local resistance. It was felt that the positive aspect of having the wind farm was thoroughly outweighed by the negative aspects. They commented that had it only been 10-15 turbines it would have been easier to accept. As Britt Giske Andersen comments: "There are reasons why we live were we live. We live here because of the open landscape and changing weather, the sea, beach and nature" (Andersen: interview 27.11.2008). The wind turbines would have changed their landscapes and taken away the peace they usually find by looking out into the open horizon. They are not forced to live in Giske, they choose to do so. A development of wind power to this degree would make them consider moving away from the islands where their families have lived for hundreds of years. It was commented during an interview that these islands in Giske municipality are even experiencing a growth in population at the moment, since people who have lived away from home wish to return to the islands to settle down. This can show the type of connection and relationship the local inhabitants have created through time towards the place they grew up. Low-frequency noise, light flashes and shadow disturbance were mentioned as aspects they feared would impact their lives considerably. As Toril Molnes commented: "We would experience a constant noise and on sunny days light flashes. That could make even the best of us a bit confused" (Molnes: interview 27.11.2008). The issues that concern the local inhabitants are clearly not just centred on the visual aspect. Profound concern is placed on the wind

turbines' actual effects on their health and wellbeing. Also commented is a fear of loosing their recreational space. As Britt Giske Andersen comments: "When it is at its windiest, is when we like to take walks outside, along the beach, so we can feel the energy" (Andresen: interview 27.11.2008). Whether or not they would still find peace in a landscape dominated by wind turbines was questioned. They want to preserve the elements that form the reason why they live on these islands. A feeling of unfairness was underlined in the interviews. They state that the only reason why their county is characterized as experiencing energy shortages is because there exists energy demanding industry in the district. As Britt Giske Andersen comments: "We live in an industry heavy county, and we do find it unfair that we have to sacrifice our nature to provide energy for energy-demanding industries in Nordmøre" (Andersen: interview 27.11.2008). Another concern is why they had to sacrifice so much for the nations benefit, or even international benefit, when in reality it is only the local inhabitants that have to live with the turbines. Also, they feel an imbalance between concern for nature and animals versus humans. They wish that humans were more considered when planning for wind power.

Generally the local inhabitants I spoke to were not against wind power, they saw this technology as an opportunity to produce clean energy and replace fossil fuels, as long as it is not developed in the vicinity of people. As Toril Molnes comments: "I am not against wind power in general. If it could be placed 50 km out at sea then it would be a good way to produce clean energy. As long as it is not in conflict with the fishing industry" (Molnes: interview 27.11.2008). Also commented was the possibility of connecting the turbines up towards oil ridges as long as they are still in operation. But Toril Molnes argues: "The impression is that the motivation to develop wind power is that this energy can be exported internationally, supplying fossil sources rather than replacing them. Wind power is like a support for higher consumption of energy" (Molnes: interview 27.11.2008). The local inhabitants found that even though the wind power industry uses saving the climate and the future existence of humans and

species as an argument to develop wind power, the local inhabitants' impression is that their motivation is profits.

A clear argument is that wind power and people do not mix but that a possibility is seen in offshore wind power as it is not visible in the horizon. In their view, if wind power were to be sustainable, it needs to be placed in the correct areas. As Britt Giske Andersen argues: "There needs to be a superior wind power plan that considers the best areas for development, where conflicts will be minimal" (Andersen: interview 27.11.2008). When these aspects are considered they are quite positive towards wind power, because of their wind resources. But placing them along, in their minds, on of Norway's most beautiful coastlines, would be detrimental. And whether or not they could ever be proud of having wind power in their district, the answer was clear. Their comment was that if you vote yes to develop wind power, and live with them everyday, then you should be proud of them. You can be proud of sacrificing for the nation's benefit. But otherwise, to be proud of the turbine seems difficult, the feeling was rather shame for letting the environment suffer.

Generally the local representatives were satisfied with the information surrounding the introduction of Havsul II project, making sure everybody received information. But the respondents felt it was merely based on a one-way communication. The project leaders were seen as brilliant salesmen. While they could sell their product, they did not consider a vital aspect. As Toril Molnes comments: "The project developers are not the ones experiencing the development and are not the ones that will live with the turbines for 20-30 years" (Molnes: interview 27.11.2008). They felt a lack of concern, understanding and empathy for the local inhabitants' sacrifices. The wind power developers were regarded as people promising that wind power would give a boost in the local economy. During the Havsul II project, possibilities for better schools and nursery schools, employment opportunities as well as nursing homes were used as examples on what income from wind power could be used for in the local communities. As Toril Molnes comments: "The impression is that wind power

developers wish to develop in communities that are faced with de-population" (Molnes: interview 27.11.2008). In communities facing this threat, wind power might receive a more positive attitude from the local inhabitants since it is seen as an opportunity for the community to develop further, also in the future. But, as Knut Støbakk, mayor of Giske municipality argues: "When wind power is developed following the premises of local communities, then value can be considered as going back to the local communities. Employment opportunities with wind power are not great" (Støbakk: interview 28.11.2008). Two important aspects are pointed out here. If wind power is not developed following local communities premises, the development can do more harm than good for the local community. Another fear is that the value of the development will be taken out of the area and sent in the direction of the developers. Employment promises from wind power directly are not seen as valid because only in the production and construction phase can employment be seen to influence local communities. But when considering that Møre and Romsdal is an energy-demanding county, making the industry energy-dependent, local energy production can be crucial for the survival of the industries. This again can secure and probably create employment, indirectly from wind power.

The local inhabitants agree that the time aspect will probably not generate acceptance, not in their case. One comment is that in time resistance will fade, but the reason why is probably because the people that lived there during construction have moved away. The new inhabitants might not mind the wind turbines since they do not know of a different situation. Also, they agree that the statement about removing wind turbines without trace to be untrue. Not only will it be difficult to regain the area's original state, but they are also sure that nobody will be willing to pay the cost of removing them entirely.

The local inhabitants characterised Møre and Romsdal as one of Norway's most interesting areas when considering tourism. As Britt Giske Andersen comments: "We are probably in an area of Norway that is optimal for those who seek nature experiences" (Andersen: interview 27.11.2008). Tourism is seen as

decisive for the survival and development of the local community. People are starting to see that they can earn an income based on small-scale tourism. Although it is agreed that ecotourism does not exist today when considering the definition, the area is seen as having high potential for ecotourism. One representative commented that she wanted to develop an ecotourism product at her farm. There is optimism surrounding the concept of ecotourism. As Toril Molnes comments: "A consequence of ecotourism is that small communities can develop. We are not talking about busloads of people, but just enough people so we get the income necessary to live here" (Molnes: interview 26.11.08). The feeling is that ecotourism could be a handy secondary income source for when times are tough in other sectors. Especially people that possess land that is unique and is otherwise unused, see ecotourism as an interesting business venture. Ecotourism is also seen as a tool to create more environmentally friendly alternatives for the local community. To underline this local opportunity, I see relevant to mention the perspective of Snorre Slettvold, even though he is not a local representative. As Snorre Slettvold comments: "Ecotourism can stimulate in expanding local transportation alternatives, like bus or train that are more environmentally friendly" (Slettvold: interview 18.11.2008). An expanded public transportation sector will gain the local inhabitants at the same time as the ecotourist has more environmentally friendly alternatives than car or airplane to choose from. Bjørn Tømmerdal comments that: "Ecotourism can give locals an understanding of the local nature's unique characteristics in that people travel here to experience it" (Tømmerdal: interview 25.11.2008). He was not the only one interviewed that had this opinion. In this case, ecotourism can show local inhabitants what value their environment has, creating awareness. Living in the environment, people get used to it, and perhaps starts to forget the love for the environment. Ecotourism can make them think twice and not let them take nature for granted and make them start caring and protecting these resources. On the other hand, ecotourism is seen as difficult to make profitable if kept small scale. In such a situation the representatives would no longer characterise the product as ecotourism since the uniqueness most probably will have disappeared. Also,

when ecotourism is expanded, the local inhabitants are unsure how this will inflict on their daily life, whether or not they will feel intruded upon. If it were to be possible to develop ecotourism in Møre and Romsdal, public support and cooperation throughout the industry is seen as needed.

4.3 Wind power and ecotourism seen in the same district

A quite clear argument from the perspective of the local inhabitants is that wind power and ecotourism will be mutually detrimental when developed in the same area. As Toril Molnes comments: "The ecotourist does not want to hear or see the wind turbines. I could not dream of starting with ecotourism if wind power development became a reality here. They are too visual in the landscape" (Molnes: interview 27.11.2008). The wind power projects that so far have been discussed for this area are perceived by the local inhabitants as to visible in the landscape, making any form of tourism development, not only ecotourism, difficult. It is commented that the turbines would clash with the impression and the expectations the tourists have of Norway. Britt Giske Andersen argues that: "Wind power can not be developed in areas consisting of already strong tourism products. I do not believe that a wind turbine can become a big tourist attraction, at least it is not an ecotourist attraction" (Andersen: interview 27.11.2008). It is agreed that tourists visit Sunnmøre to see the unique and unspoilt nature, and not industrial installations. The only possibility seen for wind turbines to become an attraction would be to promote them in an area that does not have a strong tourism product. This means introducing them from the beginning, when a new tourism destination is created, and not trying to make them work in an area where tourism and nature already have a strong position. In this situation they can work together, by supplying clean energy to the tourism industry while the tourism industry is supplied with visitors, like researches, repair crews and groups who travel for educational purposes. Whether or not it will be successful will have to be seen, but it is believed not to be a part of an ecotourism product.

In a situation where you are about to loose something you value highly, but which has become so normal that you take it for granted, the appreciation of these resources might become higher. Ecotourism and wind power are both to some degree seen as a threat that might change an area. As Terje Devold, leader of the tourism company 62 Grader Nord in Ålesund, comments: "The short term consequence of the conflicts between wind power, ecotourism and local inhabitants, can be a greater awareness of the value surrounding the community. It all becomes clear in the moment you are about to loose the value" (Devold: interview 27.11.2008). The people in Giske municipality have through being opponents to change or supporters of development become more aware of their natural resources and the value these resources represent for them personally, either possessing instrumental, inherent or intrinsic value. As a result, the opponent side to wind power development can grow stronger and it probably will impact decisions when considering ecotourism. Another interesting issue mentioned in my fieldwork was that a conflict can result in no development. To show this possible consequence for Sunnmøre, I find it relevant to mention Ane Brunvolds perspective, even though she is not a local representative. As Ane Brunvold argues: "Since there is a conflict, a result can be that neither wind power or ecotourism is developed. This can mean no employment or income in the local community" (Brunvold: interview 04.12.2008). The local inhabitants might become paralysed in developing either the one or the other when faced with discussions and conflict, perhaps the easiest solution is to forget about these opportunities. Then the question about alternative cost becomes relevant. It is clear that by no development they loose out on employment and income possibilities. But on the other hand, one can not know what substitutes for wind power and ecotourism development can create.

Different hypothetical situations were mentioned during my study. There were especially two situations that I found interesting. Although these are not perspectives from local representatives, I see them relevant because they are hypothetical situations at a local level and these are situations that potentially can cause consequences for Sunnmøre. First Stig Roar Husby, leader of the

Environmental Impact Assessment section in the Ministry of The Environment, comments: "If a county has developed ecotourism over a long period and has investments connected to it, wind power might abate the value invested and the concept might be damaged. This will of course create consequences" (Husby: interview 10.12.2008). The local economy can as a consequence be weakened, which will impact the people living there in different ways. Also, when a county has investments within ecotourism, the willingness to be open for wind power might not be there. As a consequence renewable energy will not be produced. Secondly a situation Snorre Slettvold comments: "When some profit while others loose, it can create further distances between social classes at a local level" (Slettvold: interview 18.11.2008). If a couple of farmers along the coast of Vigra have over a long period been successful with ecotourism, and suddenly wind power is developed, changes will occur. While the developers of wind power (could be local inhabitants) might profit, the farmers might loose. Not only can this create further gaps between rich and poor, but also create frustration and anger between citizens within the same community.

4.4 Summary of main perspectives

What became apparent is that Sunnmøre is situated in an area of the world where nature becomes more vulnerable, and therefore more valuable. Generally the local community were not against wind power technology, as long as it was placed away from humans. On the other hand the greatest environmental concern with wind power development was the needed infrastructure that would cause great interference in the environment. It would also put claims on vast areas of land. They do not believe that wind turbines can be removed without any trace. Also concern was placed on the turbines' direct impacts on local wildlife, especially the birds that rely on Runde Island. Offshore wind power is still seen as an opportunity, but the lack of knowledge surrounding the impacts on the sea environment is making the community sceptical. Generally the feeling is that wind turbines have to be placed in areas where impacts will be minimal. The

greatest human or community concern was the visual aspect. Wind turbines would take away the reason why people settled down in the area. They would damage the relationship people felt with the area. Other aspects feared were light flashes, low-frequency noise, shadow disturbances and loss of recreational space. The local inhabitants stated a feeling of unfairness. They do not believe the arguments of the wind power developers about saving the world, they believe their only motivation is profits. And other aspects the developer's promised are also seen as unlikely to happen, like employment opportunities. A fear is that the value of the project will be taken out of the county, while the local communities will be left with nothing. The local inhabitants do not believe that the time aspect will create acceptance, rather opposition will fade because of migration.

Ecotourism seems to be a development alternative that is welcomed, but it needs to be controlled to be able to minimize impacts on environments and inhabitants. Besseggen and Geirangerfjorden are clear examples of where a community lost control over tourism. A fear is that lack of profitability would make people tempted to expand the product resulting in harm on the natural environment. But they still feel that Møre and Romsdal has great opportunities for ecotourism, and tourism is seen as decisive for the local communities survival. Ecotourism is a source of secondary income when times are tough in other industries as well as creating awareness for their local resources. It is also commented that conflicts between wind power, ecotourism and humans can create local awareness and protection of their resources.

The local inhabitants feel strongly for their landscape, and it is the open horizon that gives them peace. It is quite clear that nature and landscape represents value for the local inhabitants. The use of this landscape should be locally decided, and if it is protected, the locals should still be allowed to use it. A quite clear argument is that wind power and ecotourism will be mutually detrimental. They believe that the wind turbines would clash with the expectations tourists have of Norway. It is agreed that tourist visiting Sunnmøre want to see unique and unspoilt nature, and not industrial installations.

This chapter has shown that challenges face the success of wind power and ecotourism. If sustainable development were to be successful at a local level in Sunnmøre, these challenges need to be addressed. In the following chapter the challenges found in my study will be further discussed to see whether wind power and ecotourism are tools to obtain sustainable development in Sunnmøre.

5. ANALYSIS OF CHALLENGES FOR A LOCAL COMMUNITY IN FACILITATING SUSTAINABLE DEVELOPMENT

Conflicts brings with them challenges. This thesis has so far described a quite complex situation consisting of conflicting arguments, conflicting interpretations of concepts and conflicting views on nature. Wind power and ecotourism are users of the same natural areas, the same natural areas local inhabitant and other industries rely on. They put claims on natural environments and change them forever. First it was pointed out that wind power and ecotourism, although portrayed as sustainable, have some severe consequences connected to their operation. Further followed two chapters where findings during my fieldwork were presented. First the development actors' points of views on wind power, ecotourism and surrounding issues were discussed. During chapter 3 it became clear that their arguments and points of views were quite varied on some issues, while on other issues they agreed. The next chapter considered the local representatives' points of views at the same time as impacts from wind power and ecotourism on local environment and communities were discussed, finally the focus was placed on the possibility of having wind power and ecotourism in the same district. These chapters have shown that wind power and ecotourism are complex and paradoxical concepts that are connected to different views and dilemmas from different interested parties, not always with a positive note.

Chapter 5 is dedicated to discuss sustainable development in Møre and Romsdal, considering wind power and ecotourism. The main challenges facing sustainable development of wind power and ecotourism found during the last three chapters will be discussed. First, a summary of the main conflict lines found is made, shown in chapter 3 and 4, which will form the basis for this chapter.

5.1 Main conflict lines

As shown in the presiding chapters, there exist many arguments and points of views on wind power, ecotourism and the use of nature that can potentially create heated discussions, some already have. This study consists of five interested parties who clearly represent different views and arguments. This thesis has shown that a cause to why discussions have become as extensive and heated as they have, might be a symptom of five interested parties with different motivations and views. A lack of systemized information has created confusion and potentially created bigger conflicts than necessary by misunderstandings and misinformation. An example can be the comments I received when the representatives in my fieldwork were asked whether or not they found wind power to be sustainable. Toril Molnes, local inhabitant on Vigra island, states that it is difficult for her to characterise wind energy as environmentally friendly when considering all phases: planning, production, construction and in operation (Molnes interview: 26.00.2008). On the other hand, Johnny Loen, who works in the Area and Environmental Conservation Department in Møre and Romsdal county, argues that: "Calculations show that the energy produced in a wind farm is more than the energy used in the production and construction phase" (Loen interview: 18.12.2008). Harald Dirdal, wind energy project developer, also comments that "It will take approximately three months to produce the energy used to construct one wind turbine. It will produce 40-50 times more energy than what is used to be constructed within its lifetime" (Dirdal interview: 20.11.2008). Finally Ane Brunvold, leader of the Climate and Energy Department in Bellona, argues that: "It will take five months to produce more energy than is needed for construction in Norway" (Brunvold interview: 04.12.2008). None of the above statements tell the same story or state the same facts, but they are considered the truth. This has made, for example, the debate about wind energy even more complicated, and many times misunderstandings between the parties have been the cause. To make the situation easier to grasp, I have made a summary of the main conflict lines in this study:

1. Conflict of interests when it comes to the use of natural resources: It is not agreed upon what is a sensible use of natural resources.

2. Conflict of interests when it comes to who has the right to decide how to use the natural resources: It is not agreed upon whether resource use should be decided on a local, county, national or a global level.

3. Disagreement on the reasons why to develop sustainable alternatives: Mentioned reasons were the climate crisis, biodiversity, global responsibility, profitability and the need for more energy. Different motives for the development of sustainable alternatives can create different views on how best to develop the planned project.

4. Disagreement on whether Norway needs more energy to supply growing demands: Some say Norway needs more energy while others say Norway has enough energy, and the only reason why more energy is produced is to supply growing demands and for exportation.

5. Disagreement on whether wind power and ecotourism can coexist in the same are: Some say it will not cause a problem, while others say that ecotourism would not have a chance in a wind power district.

6. Disagreement on whether a wind turbine can become a tourist attraction, or an ecotourism attraction.

7. Disagreement on whether in time acceptance for wind turbines will grow: Some say that with time opposition will fade, while others say that time will have a quite opposite effect and result in migration to other areas.

8. Disagreement on whether wind power or ecotourism are economically decisive locally and whether they can be profitable within their principles.

9. Conflicts between views on whether wind power and ecotourism can be characterized as sustainable in practise.

Disagreements were found in all the main areas studied: the use of natural resources, development of sustainable alternatives, the need for more energy, wind power and ecotourism's ability to exist in the same area, time issues, economical issues and the sustainability of wind power and ecotourism. It can seem like the parties stand far apart, which is making the development of wind power and ecotourism difficult.

Important to mention in a situation with disagreements and potential conflicts, is to enlighten the points where all parties agree. When situations become heated, the points that are agreed upon become of lesser importance and overlooked because fighting for ones right and what is fair becomes a priority. Agreement can be the starting point for solutions, this is why it is important to mention that:

1. All parties are positive towards wind power technology as clean energy production, especially offshore.

2. All parties agree that wind power development puts claims on large geographical areas.

3. All parties are concerned with the placement of wind power projects.

4. All parties agree that it is the visual aspect of a wind turbine that causes most local resistance.

5. All parties agree that once constructed, a wind turbine could be removed completely, but in practice this is almost never done.

6. All parties agree that nature is one of the main attractions of the tourism industry in Norway.

7. All parties agree that the Norwegian tourism industry is characterized as small-scale and fragmented.

8. All parties see ecotourism as a potential better form of tourism than mass-tourism.

9. All parties underline the importance of local empowerment over decision making when it comes to the use of natural resources.

These nine points can represent a starting point to create a common ground, the common ground that is lacking at present time between the interested parties. This common ground could be the arena where solutions are found. When looking at the nine points, what represents the greatest surprise is that everybody mentions their positive views on wind power technology. And already, just by looking at the points of agreement, a solution is commented by all: Offshore wind power. It would be interesting to see whether all parties were aware of this fact. It has become clear that wind power is the source of most emotion filled discussion, and not ecotourism. The fact that they agree to have a positive view on offshore wind power is in this case quite interesting. At the same time, whether local inhabitants are aware of the fact that also wind power project developers are concerned with the placement of wind farms is an interesting statement. The impression from the interviews is that the local inhabitants do not think highly of the wind power project developers. The fact that the project developers are sincerely concerned with the placement of wind farms can represent a surprise for the local inhabitants. Also, there is agreement that the visual aspect is the issue causing most local resistance. This should give an indicator to the interested parties where to start their work when trying to obtain local acceptance. On the other hand, tourism in Norway is seen as based on nature. It should give the parties an idea of where to start when working for the coexistence of wind power and ecotourism. It is nature and the local communities that have to be their main concern in this case. At the same time, when there is agreement that ecotourism has the potential of being more sensible than mass-tourism, it can be understood that the principles behind ecotourism are principles to back in future development, including local inhabitants to ensure its success.

5.2 Wind power and ecotourism existing together

One of my main arguments in this thesis is that in order to obtain sustainable development in the future, all levels of a society have to work towards the same goal of a sustainable future. This means that in the future, sustainable alternatives have to coexist in the same areas, since in theory all production and development measures would be sustainable. But, realistically, will wind power and ecotourism ever be successful in the same area?

My fieldwork has shown a special concern for wind power being detrimental for the basis tourism in Sunnmøre relies on. This concern was especially voiced by the local tourism industry and local inhabitants. As commented by Terje Devold, leader of the tourism company 62 Grader Nord in Ålesund: "Ecotourism is based on close natural attractions and experiences. The wind turbines are big industrial installations which can reduce the attraction of such natural experiences" (Devold: interview 27.11.2008). A clear view from the tourism industry is to either have wind power or ecotourism in one area. The tourism industries' view is that the development of wind power in an area where ecotourism is a product, ecotourism would become difficult to make successful. Lewis, the largest island of the western Isles in Scotland, was faced with a development plan for the world's largest wind farm between 2001 and 2008 when the Scottish government finally rejected the proposal. The wind farm opponents said that any economic benefits to the Western Isles from wind power would be outweighed by lost tourism revenue (Owen 2005). "It is often said, you can't eat a view, but tourism operators and thousands of islanders earn their living from just these views. If they are destroyed, so is their livelihood" (ibid.). The local inhabitants I interviewed shared the same view. As Toril Molnes comments: "The ecotourist does not want to hear or see the wind turbines. I could not dream of starting with ecotourism if wind power development became a reality here. They are too visual in the landscape" (Molnes: interview 27.11.2008). This is an understandable fear, those relying on nature-based tourism and in the future wanting to develop ecotourism, see the basis for their

future tourism venture go down the drain. When there already exists a strong tourism product in an area, wind power is seen as detrimental for the industry. As Britt Giske Andersen, local inhabitant on Giske Island, commented: "Wind power can not be developed in areas consisting of already strong tourism products. I do not believe that a wind turbine can become a big tourist attraction, at least it is not an ecotourist attraction" (Andersen: interview 27.11.2008). As long as wind power is developed in an area where tourism is young and in the development stage, the tourism industry can use wind turbines to their advantage and probably create an attraction out of the turbines. It has been said that public opinion has shifted and that wind energy is becoming tourist attractions. For example, in England there have been reports of wind tourism with the development at Delabole attracting nearly 100,000 visitors in its first year (Pasqualetti 2002:165). This example considers tourism in general and not ecotourism. Where ecotourism already has carved a path and planted expectations in tourists' minds, it will be difficult to market wind turbines as an experience ecotourists can take part in while admiring the unspoilt, unique environments and communities they first came to see. An ecotourist's motivation for travelling to an area does not fit with modern industrial installations because of the impacts they represent, the result being that tourists stop travelling to the affected area. As shown, there is a difference between an ecotourist and a mass-tourist. A wind turbine could become a mass-tourism attraction, but it is hard to see how a wind turbine could become an ecotourism attraction in an area where tourism already has a strong position.

Not many comment on how ecotourism development might be in conflict with wind power development in my study. Mostly one sees wind power as causing harm to ecotourism and not vice versa. But one comment that caught my attention was Ane Brunvold's comment: "Since there is a conflict, a result can be that neither wind power nor ecotourism is developed. This can mean no employment or income in the local community" (Brunvold: interview 04.12.2008). The coexistence of wind power and ecotourism might never happen, because potential conflicts between the alternatives put developers and

communities off. Or, if a community is highly invested in either wind power or ecotourism, it would hinder the development of the other because of fear of what the effects would be on the development alternative already existing. The economy can as a consequence be weakened. This points towards a future where wind power and ecotourism would never be developed in the same area, the result being that either tourism or energy production would not be sustainable. For example, mass-tourism and wind power, ecotourism and oil ridges or mass-tourism and oil ridges. The future prospects are one, the other, or neither. It is paradoxical that ecotourism would fit best with energy extraction from oil, but the industrial installation would not be visible.

Other representatives in my study also saw a possible friction between wind power and ecotourism, but many had a generally more positive view, where the conflicts between wind power and ecotourism were seen as possible to overcome. Even some of the tourism representatives shared this view. Terje Devold comments that: "To see that wind power and ecotourism go hand in hand demands an educational approach: that what you are experiencing today is based on renewable resources" (Devold: interview 27.11.2008). As expressed here, as long as the tourists know what to expect, it could be possible to at least combine wind power and tourism. Whether or not a wind turbine would ever meet the expectations of an ecotourist, is on the other hand more complicated. Then the tourism industry has to educate the ecotourist to see that wind turbines are a positive addition in an environment or a community because of the clean energy it represents. The tourism industry could also market the product as a destination where only clean energy is consumed, by local inhabitants and visitors. A view that was portrayed in this study was the frustration especially wind power developers and a few environmental organisations felt about what tourists and the tourism industry found beautiful or interesting. Ane Brunvold comments that: "For us it is hard to see why tourists like Hurtigruta, a vessel that spews out CO2 and other pollutants, while they argue they don not want wind power because it is ugly" (Brunvold: interview 04.12.2008). Another example was Atlanterhavsveien, a road stretch tourists love, at the expense of the impacts and

changes in the environment that was needed for its development. Yet another dilemma, the development of wind turbines can not be developed in the fear of loosing tourists, while attractions like Hurtigruta and Atlanterhavsveien are backed and protected from wind turbines even though they pollute and have impacts on the environment. Perhaps one should not be so afraid of loosing tourists to wind power, rather see what opportunities it might bring. But whether a community affords this risk is an important consideration.

A general view in my study, except by wind power developers, was that tourists in some way would react negatively towards visible wind turbines. A survey already quoted, carried out by Vestlandsforskning, showed that 18 percent of tourist would not visit an area they knew had developed wind power (Nationen 2007). Also a survey done by Lisa Hörnsten (2002), on the attitudes tourists had towards wind turbines in the mountains, showed that as long as the turbines were not visible for a tourist, then a combination of tourism and wind power would be possible. Between 80 and 90 percent of the tourists in the survey were positive or neutral towards the existence of wind farms. The survey also shows that attitudes are generally more negative when the tourist became visually impacted by the turbines during their vacation in the mountains. Between 10 and 20 percent of the tourists asked would most certainly not visit the specific area researched, Härjedalen in Sweden, if wind turbines were to be developed there. She concludes that it is possible to combine wind power and tourism in the mountains as long as the wind turbines are not placed in areas that are important for tourism (ibid.). Is it enough for an ecotourist that the wind turbines are not visual? If so, combining wind turbines and ecotourism seems less complicated. But by my understanding of ecotourism, especially in a total trip focus or as an eco-traveller, it is not just the destination that concerns the ecotourist. They take the total trip and area into consideration, and any form of unnatural interference or impacts on the environment and local community they wish to visit would be seen as negative, especially if it is not expected. But again, it is paradoxical that an ecotourist would not support a clean energy alternative.

5.2.1 Summary

If this was a debate about wind power and tourism, then making wind power and tourism successful in the same area would be possible. And it has already happened, in places where the wind farm attracts tourists, for example in Smøla and Delabole. It would be especially successful in areas where tourism is young and under development. But this is not a discussion about tourism in general, rather ecotourism. And it is not a discussion about an area were tourism is young. The discussion above shows that wind power would be detrimental for ecotourism, although this would be paradoxical as wind power is portrayed as a sustainable energy source. In the end, ecotourist have their motivations for travel, and have their principles to follow. When believing and following the definition of ecotourism, wind power installations would not be a preferred experience for an ecotourist. It seems like one, the other or neither is the best solution to develop wind power and ecotourism successfully. To which degree ecotourism is detrimental for wind power is unsure because in Norway there still do not exist widespread ecotourism ventures. For wind power development to be harmed by ecotourism, there needs to be a situation where an area is highly invested in ecotourism. But an argument can be that they will be mutually detrimental since developers and communities might hesitate in deciding for a development because of the high risks for conflicts and impacts, and the result being that none of the alternatives are developed.

5.3 The use of natural resources

My study has shown disagreement on how natural resources should be used and disagreement on who decides and governs these resources. I have chosen to let these aspects be part of this study because I believe disagreement over natural resources is a root to the conflicting views on wind power and ecotourism. For example, who decides that it is beneficial to sacrifice some natural areas and not others? And what decides how natural resources should be used? It has become clear throughout the course of this thesis that interests are connected to the

different views on these aspects and that the way people value nature has a central role when considering what changes in nature are acceptable. Local inhabitants, public authorities, environmental organisations, tourism industry and wind power developers all have different opinions, and when these opinions are not implemented, unfair situations occur.

As mentioned before, Harald Dirdal asks a relevant question: "Are we willing to change nature to save the world?" (Dirdal: interview 20.11.2008). This thesis has shown that both wind power and ecotourism development is viewed as changing the environment. Much of the conflict experienced in the development of especially wind power seems connected to the way nature is valued differently. For example, the representatives from the tourism industry saw nature as not having any value as long as it could not be used in some way. Therefore development of wind power was seen as acceptable as long as it did not inflict harm on tourism products. Harald Dirdal stated that: "We can not always take local considerations, not on all levels, because then we would not have any form of development in Norway" (Dirdal: interview 20.11.2008). Their view implies that changing and sacrificing nature is a necessity for any form of human development. The local inhabitants on the other hand seemed to value nature differently, they stated that the reason for settling in this specific area was the landscape and nature. It seems unlikely that the local inhabitant would accept great changes in their local nature. They would feel shame for letting the turbines or other types of development harm the environment. As Britt Giske Andersen states: "There are reasons why we live were we live. We live here because of the open landscape and changing weather, the sea, beach and nature" (Andersen: interview 27.11.2008). They want to preserve the elements that form the reason for settling in this area. Environmental organisations seem split in their view of whether changes in nature caused by wind power development are acceptable. As Øystein Solevåg, member of the board in Naturvernforbundet in Møre and Romsdal, comments: "Nature interference in conjunction with wind power development often happens in areas with high quality and with little previous interference. When this happens it is controversial" (Solevåg: interview

16.12.2008). Or as Ane Brunvold argues: “Bellona are positive towards wind power because it is a clean type of energy, and in Norway we have many areas where this type of development is possible” (Brunvold: interview 04.12.2008). It is unclear whether any of these groups view nature as having *intrinsic value*, apart from perhaps some of the environmental organisations or local inhabitants, but *instrumental* and *inherent value* is represented. The tourism industry and wind power developers have a dominant *instrumental view* on nature while local inhabitants have a dominant *inherent view* on nature. If nature has value in itself, as no means to a further end, this study has shown that natural resources used for especially wind power development received low acceptance. With a more instrumental view it seems that natural resources used for wind power development was acceptable as long as it did not harm business interests.

My thesis has shown that the views on how natural resources should be used are connected to different main motivations. The main arguments found were: the climate crisis, biodiversity, global responsibility, profitability and the need for more energy. These arguments do not always fit together. For example, the wind power developers use the climate crisis, global responsibility and the need for more energy as arguments to secure the development of what can become their source for profits. As Harald Dirdal argues: “Norway needs more energy, and the other reason for developing wind power is the global climate crisis” (Dirdal: interview 20.11.2008). On the other hand, the environmental organisations are split in their views. For example Bellona use climate crisis and the need for more energy as arguments for developing wind power, and seeing ecotourism as a more healthy way to travel. While Miljøvernforbundet use biodiversity and the need to reduce consumption as arguments why wind power and ecotourism need to be questioned, and moderately and carefully developed. As Snorre Slettvold, organizational leader in Miljøvernforbundet, argues: “There is no doubt that this generation will in history be characterized as the generation that has exploited most natural resources, more than anyone before us” (Slettvold: interview 18.11.2008). Then again, the local inhabitants are concerned for their sacrificed resources and areas especially when considering wind power.

Their arguments are more directed at fear of loosing their resources which results in a wish to protect and minimize changes. As Toril Molnes comments: "Unspoilt nature is important for me, it is where I find peace and recreation" (Molnes: interview 27.11.2008). The tourism industry find themselves in a dilemma, they rely on nature for the success of their product, but at the same time they see themselves harming it. Their arguments are therefore biodiversity and profitability while at the same time need for more clean energy. The tourism industry is an energy demanding industry, but wind turbines would harm the profitability of the industry. As Terje Devold argues: "Yes to wind power, as long as it does not harm the main tourism product, nature. The tourism industry in Sunnmøre is faced with challenges when it comes to transportation and emissions" (Devold: interview 27.11.2008). Finally, public authorities can be seen as using all the different arguments in different situations. The use of natural resources must be profitable. At the same time climate crisis, global responsibilities and the need for more energy probably form the national objectives of what is expected from the use of natural resources. Also there is a profound concern for biodiversity, to not harm the country for future generations. As Johnny Loen argues: "The distances between areas of unspoilt nature are becoming larger. It is obvious that we need to protect the few unspoilt areas that still exist" (Loen: interview 18.12.2008). To either use or protect natural resources can sum up the views.

How the different parties will ever come to an agreement on in what way natural resources should be used is difficult to see, especially considering that motivations and views on nature are conflicting. If all parties had the same motivations for the use of natural resources, then no conflict would exist. But this is a hypothetical situation and it is against human nature. Human nature is to protect one's interests. As long as either the development of wind power or ecotourism is in conflict with someone's view on how natural resources should be used or protected, conflict will arise.

So far I have discussed motivations for why natural resources are used or protected and how the value of nature plays an important role this complex situation. But who did the representatives label as decision-makers when considering natural resources? All representatives in my study found local empowerment important, but to what degree was varied. As Knut Støbakk, mayor of Giske Municipality, argues: "Local inhabitants alone will never be able to act according to a total perspective, this is why the public authorities have the superior responsibility for the use of natural resources" (Støbakk: interview 28.11.2008). And as Terje Devold argues: "The local inhabitants need to be allowed to use their local natural resources and advantages, but the public authorities have the responsibility for regulating the use" (Devold: interview 27.11.2008). Britt Giske Andersen argues that: "Primarily the use of natural resources should be decided locally, with the state as a guide" (Andersen: interview 27.11.2008). Finally, Øystein Solevåg says that: "In our opinion, the natural resources are not owned by local inhabitants or the national government, they are borrowed from future generations" (Solevåg: interview 16.12.2008). The use of the state as a regulative tool and local empowerment seems to be agreed by all. But for some, locals are the most important representatives in decision-making, while others see either county or national levels as more suited. Finally, also future generations are seen as the ones with decision making power.

The challenge is that the decision to develop wind power and ecotourism is seen as decided on different levels. Dangers are that locals will feel intruded upon, impacted, changed and unfairly treated or that natural resources get exploited locally without national control. This leads us in the direction of an unsustainable future. It is clear that disagreement on what levels of society should decide the fate of natural resources will cause friction and emotion filled conflicts that will create further challenges for the development of wind power and ecotourism. For a local inhabitant, it is understandably frustrating that someone from a different part of the country or even world has the right to decide the fate of local natural resources. The impression of today's situation is that local empowerment and regulation from public authorities exist. And even

though a community has the right to vote no to, for example, a wind power project, they cannot place a veto on it and ultimately it will be decided on a national level. Also the lack of a national plan in wind power development plays an important part in local frustration and in the confusion between decision-makers.

5.4 Public acceptance of wind power

Public acceptance is an important factor in any type of new development. Although statistics from SSB (2006) show that 80 percent the Norwegian population are positive towards wind power technology, this study shows that local public acceptance seems difficult to obtain. Local inhabitants of Giske municipality had difficulties accepting the Havsul II project. Although the analysis showed that the local inhabitants are positive towards wind power generally, the Havsul II project did not create acceptance among the people living there. As a result the inhabitants voted against the development of wind power in their area. The same can be seen to have happened in various other places where wind power is proposed. As pointed out before in Lewis, situated in the Western Isles in Scotland, an onshore wind farm was planned in 2002. It was characterized as the world's largest wind farm with 200 turbines, each 120 meters tall. This project created many opponents within the local communities. It was blamed for damaging the habitat of bird and wildlife populations at the same time as the landscape and views would forever be impacted (Owen 2005). Wind power is a phenomenon that creates public opposition.

Without public acceptance however, wind power development seems impossible: "Public acceptance is the best guarantee for a successful wind power development" (Hammarlund 2002:107). "Large-scale wind energy development is most successful when it is first desired at the local level, and only later valued by society as a whole" (Hoppe-Kilpper et al. 2002:86). Local public acceptance is one of the main challenges when developing wind power. It is said that: "the futher away from people, the fewer the complaints and the more electricity can

be produced" (Brittan, 2002:62).The positive aspects of wind power are of a global character, while the impacts are local (National Research Council 2007:24). It is hard for local communities to sacrifice for national or international benefits when they experience local negative impacts. To define who this population is and who acceptance is necessary to obtain from will not be a discussion in this thesis. My study showed that the greatest barrier to accept wind power was the visual aspect.

5.4.1 The visual aspect

Wind turbines will alter the landscape quite quickly, when considering that it takes less than a day to erect a turbine. The visual impact will be immediate (Hammarlund 2002:101). If wind power is desired, the visual impacts are unavoidable, unless the turbines are placed 50 km out at sea where nobody lives. "In Europe the visual impact of turbines is the prime agent of negative public reaction. (...) The landscape is a social arena. This fact receives little attention" (Hammarlund 2002:107). When the social arena is ignored, people within the landscape are ignored. My study showed that the visual aspect was seen to be affecting the people's happiness the most. It was commented that the turbines would disturb the peace people gained by looking out into the open horizon. At the same time the turbines would alter the reason why they lived on these islands. It was the landscape that was pointed out as the main reason why they had settled down on such remote islands. As Toril Molnes, local inhabitant on Vigra, argues: "We would have had to live with these turbines the rest of our lives" (Molnes: interview 27.11.2008). This comment can show the unfairness felt by the local inhabitants I spoke to, a reaction expected that can be expected when the social arena is ignored in this type of development.

The unfairness felt by the local inhabitants is a symptom of the NIMBY syndrome, a closeness complexity. A definition of the NIMBY syndrome can be "finding a technology acceptable in one's county or region, but unacceptable within 5 miles of one's home" (Gipe 2002:177). Research shows a support of the

NIMBY syndrome's existence when considering wind power. "Research has shown strong support for wind energy generally but substantially less support for projects close to one's home" (National Research Council 2007:143). My study has shown a quite clear presence of the NIMBY syndrome. The representatives I interviewed explained the mismatch between 80 percent of the Norwegians being positive towards wind technology and the local opposition towards wind turbines as resulting from the NIMBY syndrome. As Øystein Solevåg, member of the board in Naturvernforbundet in Møre and Romsdal, comments: "The positive feelings about wind power will decline when it impacts own interests" (Solevåg: interview 16.12.2008). And Snorre Slettvold, organizational leader in Miljøvernforbundet, argues that: "I believe that the 80 percent live near cities, they do not see or feel the consequences" (Slettvold: interview 18.11.2008). Toril Molnes states that: "It is often decentralized municipalities that become affected by wind power, especially along the coast. While most people sit in Oslo and think wind power is great, but they will not be affected" (Molnes: interview 27.11.2008). And as Terje Devold, leader of the tourism company 62 Grader Nord in Ålesund, comments: "If you ask the inhabitants of Sunnmøre whether wind power is good, 70-80 percent will say yes. But if you ask them whether they want it here, then they all say no" (Devold: interview 27.11.2008). Finally, as Knut Støbakk, mayor of Giske municipality, argues: "The 80 percent that are positive towards wind power live in areas where they know wind power will never be developed. Of course everybody is positive towards renewable energy as long as it does not harm oneself" (Støbakk: interview 28.11.2008). Wind energy has visual impacts on environments and local communities. Although negative impacts are offset by large-scale environmental benefits, it does not seem to offer enough consolidation for the people having to live with wind turbines as their neighbour. A study carried out by Robert Thayer, showed that only 9 percent found wind farms as completely unacceptable. But wind power drew the greatest NIMBY response, compared with industries like fossil-fired plants and nuclear plants (Gipe 2002).

The challenge the visual aspect and the NIMBY syndrome represents is the lack of public acceptance wind power can generate. It is stated above that public acceptance is necessary for wind power projects to become successful. The presence of the NIMBY syndrome in connection with wind power is strong, even stronger than in combination with planning for a nuclear plant. This is quite paradoxical when considering that wind power is renewable while nuclear energy represents danger for nature and humanity. The visual impact is probably affecting public acceptance the way it is because: "Complicating the public's view of wind power, the changes it makes to the landscape are quick and obvious, while the personal benefits are invisible and only slowly realized" (Hammarlund 2002:102). When benefits are invisible to the people sacrificing, opposition and unhappiness will grow. Interestingly, a study performed by Vestlandforskning on views of the local inhabitants on wind power, found that the visual aspect was seen by the local inhabitants as having few grave consequences (Knagenhjelm et. al. 2005). They concluded that local inhabitants do not value the visual aspects as highly as expected. These findings point to the opposite direction of the findings in this thesis. It should be mentioned that the studies performed on attitudes towards wind power that exist in today's literature show varying results. For example, Hörnsten (2002) found that generally tourists were positive towards wind power, but when the turbines became visual in the areas they wanted to visit, the attitudes became more negative.

5.4.2 The time issue

Time is a common determinate for how change is viewed (Hammarlund 2002). The time issue is split in two. On one hand time is relevant considering the gap between when sacrifice happens to when one starts to see benefits. On the other hand it is argued by some that within time, acceptance for wind turbines will grow. Both these issues represent challenges for the acceptance of wind power.

The visual aspect the local inhabitant experience is immediate after a turbine is constructed. From the moment a turbine is in operation, local inhabitants also have to live with other impacts as we have seen before, for example transmission lines, maintenance roads, loss of vegetation and loss of recreational space. And it is not a matter of weeks or months, usually a wind turbine is operational in 20-30 years. The main benefits wind power is said to have are mostly on a national or an international level, for example cleaner air, income from export of energy and renewable energy sources (National Research Council 2007). Many of these benefits take time to become visible. On a local level benefits like employment and tangible income to the county are mentioned (ibid.). But often it is found that local inhabitants feel that the local benefits are outweighed by the local impacts. Local inhabitants need to be very patient to see what benefits the nation gains by their local sacrifice. The time aspect is a challenge when considering acceptance of wind power because benefits might not happen locally and might not be in the present, only visible in the future. The local sacrifice might be felt to have been made in vain. "Time is an additional factor when it comes to recognizing the effects of different developments. We tend to react more vociferously to change in the landscape than we do to widespread, perhaps even hazardous, but less visible environmental effects of development" (Hammarlund 2002:106). For example, the climate crisis might not get the same amount of reactions locally because it is widespread and intangible. A wind turbine, however, creates reactions and opposition because it is visible, tangible and locally situated. The local inhabitants in Giske municipality reacted so strongly towards the Havsul II project because in both time and space the wind turbines would be close. Therefore the consequences for landscape changes became realistic.

One theory that captured my attention is that with time acceptance for the wind project will grow (Pasqualetti 2002). During the pre-project it is expected that acceptance is high but decreasing, while during the project installation the acceptance is low. Post installation it is expected that acceptance is low but rising (Pasqualetti 2002:162-163). "Based on a few studies that have been conducted, it

appears that despite low public acceptance during the project-proposal phase, acceptance levels generally have increased following construction" (National Research Council 2007:143). This is one of many public opinion surveys, showing an increase in public acceptance after the construction phase. My survey found that the local inhabitants were positive towards wind power in general, but when faced with a concrete project in their area, the acceptance decreased markedly. As Britt Giske Andersen, local inhabitant on Giske, commented: "It is obvious that within time opposition will fade. I would have moved if the wind farm had become a reality" (Andersen: interview 27.11.2008). Perhaps it is not acceptance that grows within time, rather opposition grows weaker. In addition Toril Molnes comments that: "I do not believe time has anything to do with acceptance, quite the opposite. People move away from the areas affected, because they can not manage to live there anymore" (Molnes: interview 27.11.2008). The local inhabitants I spoke to, quite clearly did not believe there to be any substance in this theory, while the other interested parties in my study where more open towards it. This is an interesting challenge to overcome when working for public acceptance of wind power projects. Is the reason for acceptance growth that people move away, or is the reason that benefits become visible?

5.4.3 Summary

Acceptance of wind power in a local community is not an easy task to obtain. In my study the visual aspect and the NIMBY syndrome were the main factors influencing the lack of acceptance. The visual impacts of wind turbines will always be present, even if they are placed far out at sea. They are enormous industrial installations that will always impact someone, somewhere. Time is also creating difficulties for this renewable energy source. If local acceptance of a wind power project is crucial for its success, the future for this technology seems bleak considering the way these projects are developed today. Wind power developers and public authorities need to change their development plans. These

plans need to include measures to gain acceptance for wind power before it is developed.

5.5 The split between environmental organisations

It is said that alternative energy technology has received criticism from an unexpected quarter (Taipei Times 2003). The NGOs concerned with the environment, are not at all in agreement on whether wind power is as sustainable and low-impact as portrayed. My analysis found that Bellona are very positive towards this kind of technology. On the other hand, Miljøvernforbundet are quite critical towards wind power. Naturvernforbundet are positive towards the technology but are concerned about the impacts the turbines will have on the environment. This type of split between environmental organisations is not only seen in Norway, but also for example in Germany where the same effect has been experienced. These reactions were seen when Germany planned its first offshore wind power park, 30km west of the scenic North Sea island of Sylt. While Greenpeace showed its support for the park, BUND (Alliance for Environment and Nature Preservation in Germany) and NABU (Nature Preservation Alliance) expressed their opposition (Taipei Times 2003). Their concerns were for seals and whales which migrated in this area. On the other hand, Greenpeace and environmental officials worried that nature preservation would mean the end of protecting the climate. They could not foresee any adverse effects on the marine environment.

Environmental philosophy surrounds thoughts on how nature and humans are valued and what kind of value this entails. One of its main beliefs are that human needs and interests are of highest or exclusive significance. Humans are placed at the centre of the universe, separated from nature and endowed with unique values (Carter 2007:15). Another belief is that human chauvinism is to be rejected and that non-human entities also have intrinsic value (Carter 2007:16). This implies that either the environment is given value because it is seen to have intrinsic value in itself, without being dependant on anybody finding it valuable.

Or the environment is given value by humans. The views portrayed by environmental organisations seem, on the basis of this study, dependant on how they value nature, instrumentally, inherently or intrinsically. It decides what types and degrees of change in nature are acceptable. A further complicating factor is that environmental organisations focus on different basic principles. Either a focus was placed on biodiversity or on the climate crisis when considering wind power. It is realistic to expect that these two focuses and the value of nature have an impact on the views on wind power.

For example, the need for renewable energy sources is seen as a measure to control the climate crisis so that the effects on humans, species and on organisms become minimal. Research preformed on the climate crisis show how potential changes will affect humans and ecosystems. With raised water levels the fear is a loss of habitats, homes and environments. Or one fears that climate change will make the natural systems in the world act unnaturally, for example creating extreme weather. Extreme weather implies a threat to humans and to natural systems in the environment (European Commission 2009). For example, EPA (U.S Environmental Protection Agency) states that: "Many elements of human society and the environment are sensitive to climate variability and change. Human health, agriculture, natural ecosystems, coastal areas (...) are examples of climate-sensitive systems" (EPA 2009). Humans and environment are considered when the climate crisis is discussed, but when measures are proposed to minimize global warming it seems humans, species or nature will suffer, as the example of wind power has shown. Although the production of wind power might help secure human survival, it challenges biodiversity and is therefore a technology that has to be used with caution. Paradoxically, the opposite situation is also true. Biodiversity is challenged by climate change; this is why wind power should be developed. Scientists predict that 15-37 percent of all terrestrial species will become extinct within the year 2050 because of climate change (WWF 2006). Environmental organisations are facing a complicated situation if both humans and the environment are seen to have intrinsic value while climate change and biodiversity represent different focuses.

5.5.1 Summary

The split between environmental organisations when considering wind power is a challenge, because one side is working to overcome the climate crisis, while the other is concerned with biodiversity. Meanwhile both these focuses seem interconnected. In a climate perspective, wind power seems sensible because of the zero emissions of the technology when producing energy. But wind power development can have serious implications on biodiversity. On the other hand, biodiversity will be harmed by the increasing global temperatures. It is a paradox that environmental organisations are clearly struggling with. Even though an environmental organisation is supporting wind power, it does not mean that wind power is environmentally friendly if nature possesses intrinsic value. An environmental organisation is faced with a further dilemma, either to support a development alternative for the sake of humans, or oppose it because of nature. Environmental organisations are faced with dilemmas that are contributing to the debate surrounding wind power.

Environmental organisations can influence people; at least they are quite active in media. A consequence can be that their disagreement creates confusion about wind power. Conflicts and discussions might become more heated and thus might create further delays for wind power development. Or, wind power is developed and vulnerable environments are damaged for ever. Finally, it can create among the public, a feeling of mistrust in the technology and in the motivations of the environmental organisations. Wind power does not need any more controversy if it is to become a successful renewable source of energy.

5.6 Wind power and ecotourism as sustainable forms of development

Whether wind power and ecotourism individually can be characterized as sustainable, represents a challenge. When the concepts were discussed earlier in chapter 2, different types of issues that pointed towards discrepancy between

theory and what happens in practice, were mentioned. Although all types of development, even sustainable development, will have uneven impacts, at some point a line is crossed where sustainability will be impossible. The difficulty lies in deciding when the amount and character of the impacts no longer can be associated with sustainable development. It will not be in a nation's interest that a local environment or community is irreparably damaged. In this part of the thesis, wind power and ecotourism will be discussed, to find out whether they can be sustainable development alternatives for Sunnmøre.

5.6.1 Wind power as sustainable development

Wind power is described as renewable and has the potential of reducing adverse environmental impacts caused by emissions (National Research Council 2007, Pasqualetti et al. 2002). If sustainable energy production were characterized as production without emissions, then wind power would be a good example. But wind parks are not area efficient; they put serious demands on resources while large areas are affected. Some of the ecological impacts are irreparable or will take many years to get back to the original state. It is hard to describe some of the impacts as reversible, for example clearing of vegetation or habitat destruction. A consequence might be that these resources, ecosystems, and these species will no longer be present for future generations, or at least not present in their original state. Øystein Solevåg, member of the board in Naturvernforbundet in Møre and Romsdal, comments that: "Wind energy has the potential of being sustainable. But if you do not think that wind energy has any environmental impacts, you have not looked closely enough. Wind energy is favourable when it comes to the climate crisis, but not when it comes to biodiversity" (Solevåg: interview 16.12.2008). Wind energy can potentially be sustainable, but not in its current form or with the considerations taken when planned in Norway today. Norway and Sunnmøre are situated in a northern environment which makes the environment especially vulnerable. My fieldwork has shown that people from all parties were concerned with the sustainability of wind energy:

> "Wind energy has an inherent dilemma: It is production of renewable energy, an amazing resource, but at the same time it has impacts on the undeveloped environment and a misplaced wind turbine can harm nature for ever" (Husby interview: 10.12.2008). "The difficult and controversial question is the balance between local impacts and national benefits" (Dirdal interview: 20.11.2008). "Realistically, I believe that industrial installations will cause lasting harm and damage to the natural environment" (Devold interview: 27.11.2008). "Wind energy production consumes and seizes areas and interferes with areas that earlier had minimal human interference. The area becomes more accessible and available, which will have implications" (Solevåg interview: 16.12.2008).

Additional to these statements, the concern for humans living near wind turbines was stated. The turbines can both physically and psychologically impact the lives of their human neighbours, as well as alter their sense of attachment to a place and culture. Also, local communities fear having a wind farm that does not create employment or revenues, rather threatening property values. A danger is that value of a wind farm is taken out of local areas, for example by exportation of energy or the wind farm owners receiving the value. This would not be economically sustainable. Although the example concerning Smøla showed positive development, it is difficult to prove what effects can directly be linked to the wind farm. All wind power projects have individual effects, making economic assessments difficult.

This study found five main motivators for whether or not to develop wind power: the climate crisis, biodiversity, global responsibility, profitability and a need for more energy. The producers of wind power use both the climate crisis and global responsibility as arguments for wind power. Local inhabitants in Sunnmøre believe wind power developers also place profitability quite high when considering a wind power project. While public authorities used the climate crisis, global responsibility and the need for more energy as arguments. The motivation for developing wind power plays a vital part in characterizing it

as sustainable. If wind power were developed in order to secure a sustainable future, the planning and development of it would probably work towards obtaining this goal. On the other hand, if the main motivation is profits, the principles of sustainability would with difficulty become reality if they represented a higher cost. Development decisions would be decided by the cheapest alternative without considering which alternatives would secure sustainability.

Another area discussed is whether development of wind power is implemented in order to replace non-renewable sources of energy or whether it is developed to meet growing energy demands. "Wind energy production will not necessarily contribute to a more sensible energy use or reductions in energy consumption. There is a continued push for higher consumption of energy instead of using the energy we have today most efficiently" (Slettvold interview: 18.11.2008). Respondents stated that wind energy could be sustainable if it was developed to replace non-renewable sources at the same time as consumption was reduced. But the local respondents and representatives from environmental organisations did not have this impression, rather agreeing that the main motivation was to supplement non-renewable sources, and could therefore not be characterised as sustainable. To be able to develop sustainably there needs to be a change in attitude towards consumption, especially in the developed world.

5.6.2 Ecotourism as sustainable development

Ecotourism was defined as having benefits for the local community and environment through, for example, conservation measures, employment and revenues. And on paper it is being characterized as sustainable (Fennell 2008:15). One of my main problems when characterising ecotourism as sustainable is the transportation issue. Transportation is an important part of travel, but air transport and other transportation methods relying on fossil fuels cannot be considered sustainable. As long as ecotourism depends on these types of transportation methods, over long distances, ecotourism cannot be

characterised as sustainable. Transportation might be one of the most harmful aspects seen from a climatic change perspective. Subsequently, this kind of tourism needs to be regarded as unsustainable (Folke et al. 2006). Mid-Norway is experiencing challenges with transportation because of geography, developed transportation alternatives and the lack of satisfactory road systems and quality (Bjørke et al. 2007). Terje Devold, leader of the tourism company 62 Grader Nord in Ålsund, stated that transportation is one of the main challenges for the tourism industry in Sunnmøre (Devold: interview 27.11.2008). This creates further obstacles for ecotourism to be sustainable in Sunnmøre. A *total trip focus* is needed when considering ecotourism as sustainable. For example, in the Seychelles (a self-declared eco-destination), a study of the ecological footprint of international tourism was carried out. "(...) More than 97 % of the energy footprint was a result of air travel (...)Any strategy towards sustainable tourism must thus seek to reduce transport distances and, vice versa, any tourism based on air traffic needs per se to be seen as unsustainable" (Folke et al. 2006:154).

The degree the concept is being misused has caused it to lose its original value. People are sceptical about using and believing in the concept, it can even give negative associations. It is difficult to distinguish between what are real ecotourism products and what are not. When searching the internet for ecotourism operators, it seems that most of the products available would not satisfy the principles of ecotourism, especially the principles of low-impact, non-intrusiveness and remoteness of the destination. Today there are very few that use the concept with a theoretically right to do so, only 10 registered in Norway through GRIP'S (Green in Practice) certification program (GRIP has by the way been closed down) (GRIP 2009). This has resulted in that most ecotourism products existing today cannot be seen as sustainable. A global, or at least a national, certification program is needed to ensure that ecotourism is not misused.

It seems difficult to produce economically interesting ecotourism products. The fear is that for the product to become economically interesting it will need to

be expanded and compromises made on other areas, otherwise it will not be developed. It could then for example become a part of the mass-tourism product in Sunnmøre. Therefore it seems that ecotourism is not economically sustainable.

Motivation of the tourist for travel has to be taken into consideration. In this study it has proven difficult to distinguish between the ecotourists, and the mass-tourists' motivation. Mass-tourism can not be characterized as sustainable, for example considering the effects it has had along the coast of Spain during the mass-tourism invasion during the 1980s and 1990s. Due to the development of the jet engine, Spain became a close destination for the rest of Europe to travel to (Holden 2000). During this period massive hotel and infrastructure construction took over the beachfronts. This type of tourism was encouraged by General Franco to attract foreign exchange and otherwise to modernise the Spanish economy (ibid.). A result has been the complete destruction of the environment along the coast. From the analysis it seems that the ecotourist travels because of the experiences, and not because of the principles underlined in the definition of ecotourism. As long as this is the case, the tourism industry will not start offering products that are not experience or activity based, because nobody would buy these products. A real ecotourist is an *eco-traveller*, one that considers the attraction, the destination and the route travelled (Flogenfeldt 2006). Whether there exist meaningful amounts of these tourist within the segment that today call themselves ecotourists, is unsure.

Other aspects analysed, for example danger of harm on natural environments and humans, brings me further to believe that ecotourism is not sustainable and only a marketing stunt. On paper, ecotourism seems to be a healthy way of developing the tourism industry, but in reality it is hard to fulfil the principles. Harm and damage does happen, through access issues, which will make the resources unavailable for future generations. There is a need to reconceptualise ecotourism, because there are positive aspects with this concept that are necessary to develop further and that cannot be lost. But as the concept stands

today, it does not seem to have any substance. The definition is describing a situation that will never be possible to achieve in Sunnmøre.

5.6.3 Summary

Wind power and ecotourism would in their present form create benefits for a local community, but there exists a high level of uncertainty concerning the gravity of impacts wind power and ecotourism development can cause. This study characterizes both wind power and ecotourism, in their present forms, as unsustainable development alternatives for Sunnmøre. The reason is the degree of local impacts they could have on every level of this unique community and environment. Also, the economical aspects of the concepts question their sustainability, whether they would contribute to a healthy economical situation. To be able to characterize wind power and ecotourism as sustainable, changes have to be made in the way they are planned and developed in order for local impacts to happen within acceptable levels and that the uncertainty of the degrees of impacts is eliminated. How can it be beneficial for a nation or future generations that local areas are harmed to an irreparable degree? Although impacts will occur with any form of development, acceptable levels need to be defined before developing an alternative, even if it promises sustainability.

6. CONCLUSION

The future outlook for wind power and ecotourism seems complicated in Sunnmøre. As long as local inhabitants do not support these forms of development they will not be successful. At the same time it has to be questioned whether these types of development, as they are defined and planned today, should be supported in the future if sustainable development is the main objective of development. This study has shown that wind power is debated more than ecotourism. "Today we find ourselves in a deeply fragmented situation where we love nature but depend on technology" (Righter 2002:24). There has been a tendency to develop new technologies and trust that they will overcome future challenges rather then critically questioning consumption patterns and attitudes. Many of the paradoxical situations described in this thesis have their roots in this fragmented situation. The use of natural resources, which preferably is kept untouched, to develop technology humans depend on is a dilemma. It can also be argued that nature depends on renewable technology alternatives in order to survive emissions and resource exploitation. But it is dangerous to believe that technology alone will solve our problems. This would validate that consumption and attitudes toward consumption stay the same or develop the way humans wish.

Are we willing to change nature to save the world? That depends on how nature is valued, how nature is changed and by what. The argument in this thesis is that neither wind power nor ecotourism can be characterized as sustainable in their current form and setting. The reason is the uncertainty whether they are economically sustainable. In addition there are uncertainties surrounding the degree of impacts on communities and environments. This thesis has shown that, for example, economical aspects, transportation issues, visual aspects, access issues and cumulative impacts on vegetation and species are challenges facing Sunnmøre in the development of sustainable wind power and ecotourism.

Therefore changing nature to develop these alternatives would be unfair and detrimental to sustainable development. Complicating the situation further are the different views on the value of nature found in this study, giving the different interested parties reasons to support or oppose development alternatives. Wind power has opportunities for success. But ecotourism needs to be redefined in order to create a concept that is realistic to in the future.

The local inhabitants in Sunnmøre were quite open-minded towards the development of ecotourism. It was also seen as creating a greater local understanding for resources, which shows what value a sustainable form of tourism could have. All parties did agree that ecotourism was a potentially better way of travel than mass-tourism and that nature is Norway's main feature, which is why elements of ecotourism need to be brought in to a new concept. It was questioned whether it will be worth developing ecotourism in Møre and Romsdal when it is difficult to make the rest of the country follow. The tourism industry is small-scale and fragmented in Norway, which makes the development of an alternative form of tourism nationally difficult. Sustainable development requires everyone to work towards the same goal for it to be successful. If not, society would consist of free-riders making sustainable development impossible. Even though the industry is fragmented, a sustainable form of tourism should be developed in Møre and Romsdal, because if they did not, the belief would be that a little effort will not help. Since the concept of ecotourism is not an important part of the Norwegian tourism industry at present, it can be possible to redefine it. The concept attracted much enthusiasm which can prove that people found the principles of ecotourism valuable or important. Using these principles and combining them with a more realistic goal would be useful. At the same time a global certification program has to be developed. In doing so, a new form of sustainable tourism could regain value and trust among travellers, tourism operators and critics and its success at a national level could be secured. The impacts would be minimized while the paradoxes ecotourism stood for would be eliminated. But it is dependant on how the transportation issues Møre and Romsdal are faced with, are solved.

Wind power is connected to a great deal of positive attitudes which gives this development future opportunity. This study has shown that all the representatives I interviewed had a positive view on wind power technology if placement issues were considered. As long as the turbines were placed far away from humans and impacts were ensured to be at a minimal level, this technology was seen to be successful in the future. Although placing wind farms far away from humans is not financially possible today, it can be made possible in the future. Placing wind power out at sea, connecting them to oil ridges was mentioned as a good solution, as long as impacts on the environment and other industries are taken into consideration. At least local communities would accept the project, and it is their acceptance wind power needs to secure its success. "The wind industry must strive to be a good neighbour. Potentially more damaging to the proliferation of wind power is the long-term erosion of general public support that frequent local conflicts entail" (Gipe 2002:177). Conflicts will reduce local support for wind power which is why conflicts need to be solved or eliminated. For the future success of wind power, local inhabitants need to be involved in the project from the beginning. The public are generally more inclined to be positive towards a project when they have had a chance to influence outcomes. When the project reflects local values, considering the social arena, fewer people will find themselves in an unfair situation. Perhaps this can contribute to minimizing the local resistance caused by the visual aspect. The visual aspect will be present, but its effect can be minimized. To improve public acceptance of wind power, first political objectives and goals need to be addressed. Improvements in incentive programs on a national level can show that there is a political will to develop wind power, which can have a positive effect on public acceptance. Secondly, continued technological development and an active educational program is necessary, to minimize disturbances to people and environments and inform the public of possible impacts. Thirdly, there is a need to deal directly with the affected people and discuss how much alteration of their landscape is acceptable. In this way, the discussion is brought down to a local level, involving people in the decision making process. Perhaps the feeling of

being forced into something, also found in my study, will be eliminated. There is still a lot of work to be done in Norway regarding these aspects. Especially a national plan is encouraged by all the different parties represented in my study. Included in the national plan should be requirements about how wind turbines are removed when they no longer are in operation, and it should clearly state whose responsibility this is. This plan should also clearly state what areas can and can not produce wind energy. The lack of such a plan causes uncertainties that need to be eliminated in the future, because uncertainty does not create acceptance.

"There are limits to what you can cluster together in the same area, it depends on the quantity of wind turbines, animals, vegetation and other industries" (Andersen interview: 27.11.2008). This study has shown that it would be difficult to make both wind power and ecotourism successful in Sunnmøre as the current situation stands. One consequence being harm to local tourism ventures which are seen by local inhabitants as crucial to their existence. And in their current form it would not be advisable to introduce these developments because they contradict sustainable principles. But again it became clear that local acceptance was crucial for the development of both alternatives. This is why the opinions of local representatives became important aspects in this study. Wind power and ecotourism can be decided or viewed as positive from a national level, but as long as acceptance is not gained at a local level, the projects will with difficulty become successful. In the future, when ecotourism is redefined to a more realistic sustainable form of tourism, wind power might not be detrimental to this development. Rather it could, as many argued in my study, be seen as a positive aspect for the tourism destination. Clean energy from renewable resources goes hand in hand with sustainable development. It depends on how travellers and local inhabitants are educated. The tourism industry is fragmented, but the future necessitates cooperation for sustainable development to become successful. Truthful information is an important aspect of reducing uncertainty and of achieving acceptance especially concerning local communities' expectations from any type of development. A certain aspect is that if wind power and a sustainable form of tourism become economically

interesting and feasible for local communities and nations, they will be developed and accepted. Therefore it creates opportunities for wind power and a sustainable form of tourism to become part of sustainable development in an area. Factors such as impacts, effects and gaining acceptance should be considered and dealt with before any form of new development is introduced, and not after when harm has already been done.

6.1 Further research

What would be interesting to explore further are the views on wind power and ecotourism in both coastal communities and inland communities. This study has concentrated exclusively on a coastal community. A further contribution could be to include the perspectives of the travellers, or the ecotourists, as they are an interested party when considering wind power and ecotourism. This study primarily focused on perspectives of the tourism industry and on assumptions from previous research on the ecotourist. It would be interesting to see how an ecotourist would react to a situation where wind power and ecotourism are developed in an interesting area for ecotourism. Finally, no empiric research was directed at offshore wind power in this thesis. But this study found that offshore wind power is connected to many positive attitudes. Interesting would be to perform empiric research on the success of offshore wind power in the light of some of the issues researched in this thesis.

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